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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS Supplements I-XIII. (JN)

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Water

Water Quality Instructional Resources Information System

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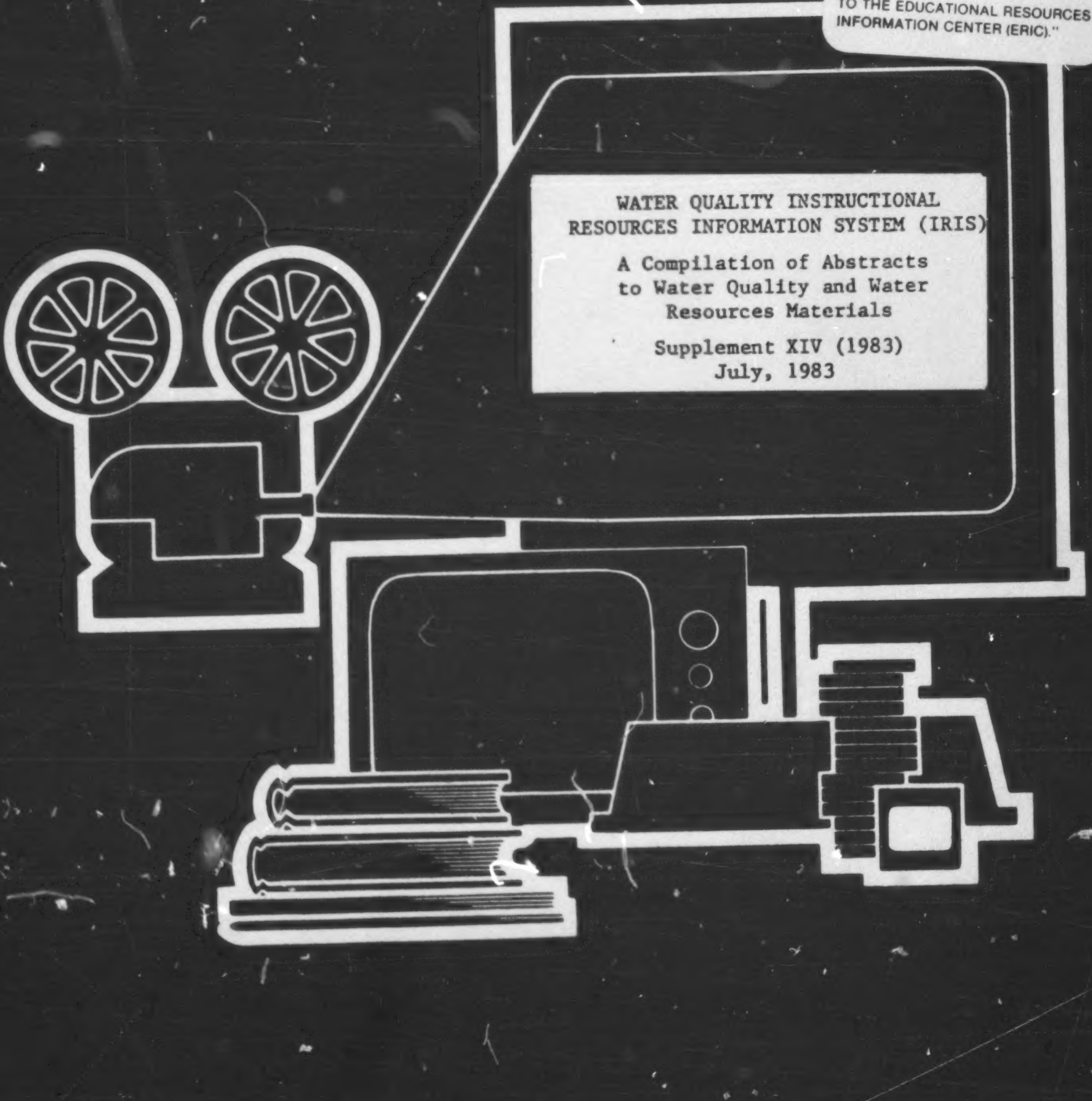

WATER QUALITY INSTRUCTIONAL
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts
to Water Quality and Water
Resources Materials

Supplement XIV (1983)
July, 1983

Prepared by

EPA Instructional Resources Center
SMEAC Information Reference Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to Water Quality and Water Resources Materials

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Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Instructional Resources Center. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Instructional Resources Center.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1983 is $12.00 (within the U.S.). Price to Canada and Mexico is $14.00. Prices in other Countries is $18.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through the Bibliographic Retrieval Services, Inc., (BRS) and with Dialog. Any search service that currently subscribes to BRS or Dialog is able to search the IRIS data base by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to BRS or Dialog and do their own searches if they desire.

Information regarding BRS may be obtained by writing or phoning BRS, 1200 Route 7, Latham, NY 12110, (518) 783-1161.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Instructional Resources Center.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through three major database vendors: Dialog, Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for $0.03 per page plus $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
2214 North Central at encanto
Phoenix, Arizona 85004
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $8.00 per article and $10.00 for articles dated prior to January 1981. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(800) 521-0600

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

   a. IRIS NUMBER: EW006023
   b. PUBLICATION DATE: FEB 81
   c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
   d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
   e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

   f. DESCRIPTIVE NOTE: 30-33P.
   g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.

   h. AVAILABILITY: POLLUTION ENGINEERING; V13 N2

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

   f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed. The price of the material quoted is the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained.

2. Sample resume of material entered into ERIC (Resources in Education)

Items entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664
PUBLICATION DATE: 80
TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.
DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT.

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS OF
a. WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index or Author Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

If you need help in using the IRIS manuals, phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

   See section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS.

   Contact: Bibliographic Retrieval Services, Inc.
   1200 Route 7
   Latham, New York 12110
   (518) 783-1161

3. Subscribing to Dialog for computer searching of IRIS.

   Contact: Dialog Information Retrieval Service
   3460 Hillview Avenue
   Palo Alto, California 94304
   (415) 858-3775

4. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee.)

   The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

   Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center plans to develop some user service products in selected areas in 1982.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education
The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, NW, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
Huntington Hall
150 Marshall Street
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California at Los Angeles (UCLA)
Mathematical Sciences Building, Room 8118
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
3520 Prospect Street, NW
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teacher of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics and Environmental Education
The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education (AACTE)
One Dupont Circle, NW, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels, all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service (ETS)
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

P. ERIC Clearinghouse on Urban Education
Teachers College, Columbia University
Institute for Urban and Minority Education
Box 40
525 West 120th Street
New York, New York 10027
Telephone: (212) 678-3433

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences), education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education (NIE)
Information Resources Division
1200 - 19th Street, NW
Washington, DC 20208
Telephone: (202) 254-5500

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. or Dialog. As IRIS becomes available through other sources, information relevant to those services will be provided.

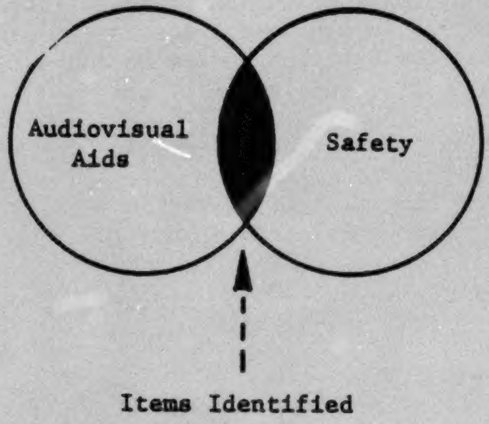
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW Number), (2) ERIC Accession Number (ED Number), (3) Authors, (4) Institution, (5) Title, (6) Subject index terms, and (7) Abstracts.

If you submit a search of IRIS through BRS or Dialog, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) title field, (2) subject index field, and (3) abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this techniqu, you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

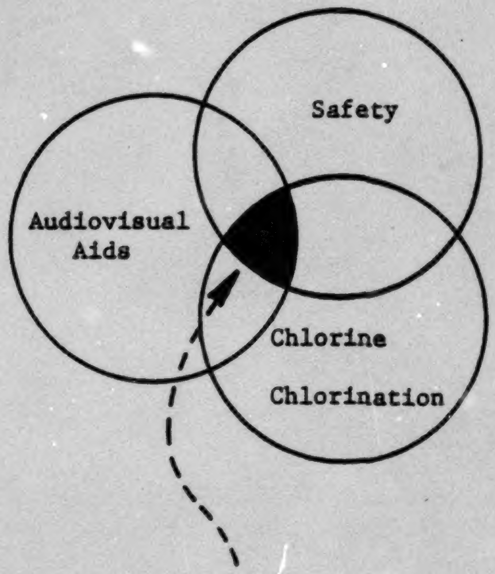
Several sample searches are listed below and on the following pages.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract and the subject index field would be identified by computer.

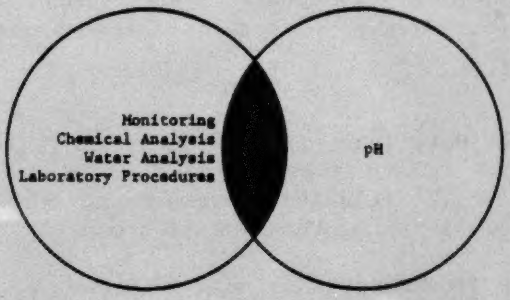


The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.


Safety
Audiovisual Aids
Chlorine
Chlorination
Items Identified

B. Sample 2

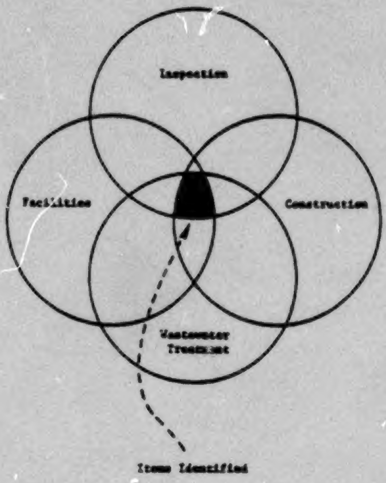
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.


Monitoring
Chemical Analysis
Water Analysis
Laboratory Procedures
pH

This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that is in the subject index.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on loan or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office are available from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for $1.00 per document plus $0.03 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW002190

PUBLICATION DATE: OCT 78

TITLE: SLUDGE TREATMENT AND DISPOSAL - SLUDGE DISPOSAL 2.

DESCRIPTOR: *COMPOSTING; *INCINERATION; *LAND APPLICATION; *LANDFILLS; *OPERATIONS (WASTEWATER); *SLUDGE; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS IS VOLUME 2 IN A TWO VOLUME SERIES ON SLUDGE TREATMENT AND DISPOSAL. VOLUME 2 CONTAINS CHAPTERS ON INCINERATION-PYROLYSIS OF WASTEWATER TREATMENT PLANT SLUDGE, SEWAGE SLUDGE COMPOSTING, PRINCIPLES AND DESIGN CRITERIA FOR SEWAGE SLUDGE APPLICATION ON LAND, AND SLUDGE LANDFILLING.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW004175

TITLE: A BACHELOR OF ENGINEERING TECHNOLOGY CURRICULUM IN WATER QUALITY MANAGEMENT - COURSE GUIDES.

DESCRIPTOR: *COURSE DESCRIPTIONS; *CURRICULUM; *HIGHER EDUCATION; *DEGREE PROGRAMS; *MANAGEMENT; *PROGRAM DESCRIPTIONS; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 131P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS PUBLICATION CONTAINS COURSE GUIDES FOR A BACHELOR OF ENGINEERING TECHNOLOGY CURRICULUM IN WATER QUALITY MANAGEMENT. DETAILED COURSE CONTENT ARE INCLUDED. THE CURRICULA CAN BE USED BY INSTITUTIONS FOR TOTAL PROGRAMS, FOR DEVELOPING 2 + 2 PROGRAMS (COMMUNITY COLLEGES AND UNIVERSITIES), AND FOR INDIVIDUAL COURSE GUIDES. CONTENT SHOULD BE REVIEWED BASED ON ADVANCES IN VARIOUS FIELDS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW008705

PUBLICATION DATE: FEB 83

TITLE: WATERWORKS OPERATORS TRAIN BY TELEPHONE IN WISCONSIN.

DESCRIPTOR: *EDUCATIONAL MEDIA; *EDUCATIONAL PROGRAMS; *INSTRUCTION; *OPERATOR TRAINING; *POSTSECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; TECHNOLOGY; *TELEPHONES; *TRAINING PROGRAMS; *WATER TREATMENT; WISCONSIN

DESCRIPTIVE NOTE: 11P.

ABSTRACT: THIS ARTICLE DESCRIBES A TRAINING PROGRAM FOR SMALL WATERWORKS OPERATORS THAT USES TELEPHONES. INTERMEDIATE-LEVEL CLASSES FOR OPERATORS ARE CONDUCTED BY TELEPHONE USING THE EDUCATIONAL TELEPHONE NETWORK OPERATED BY THE UNIVERSITY OF WISCONSIN. THIS ARTICLE DISCUSSES THE PROGRAM'S DEVELOPMENT, IMPLEMENTATION, AND EVALUATION.

AVAILABILITY: AWWA MAINSTREAM

IRIS ACCESSION NUMBER: EW008811

TITLE: THE WALSH INSTRUMENTATION TRAINING PROGRAM: WITP.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CALIBRATION; *DIAGNOSTICS; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; *POSTSECONDARY EDUCATION; *TRAINING; *VIDEOTAPES

DESCRIPTIVE NOTE: COMPLETE PROGRAM INCLUDES: 30 COLOR VIDEOTAPE MODULES, 5 SETS OF TRAINEE WORKBOOKS, AND COURSE MANAGER'S GUIDE.

ABSTRACT: THIS INSTRUMENTATION TRAINING PROGRAM INCLUDES MATERIALS ON CALIBRATION, MAINTENANCE, AND DIAGNOSTICS. IN ADDITION THERE ARE SEVERAL REFERENCE MODULES. THE COMPLETE PROGRAM INCLUDES 30 COLOR VIDEOTAPE MODULES, FIVE SETS OF TRAINEE WORKBOOKS, AND A COURSE MANAGER'S GUIDE. THE MATERIALS ARE SUITABLE FOR EITHER SELF-PACED STUDY OR CLASSROOM USE.

AVAILABILITY: WALSH INSTRUMENTATION TRAINING, INC., 4999 ST. CATHERINE STREET, WEST, SUITE 305, MONTREAL, CANADA H3Z 1T3

IRIS ACCESSION NUMBER: EW008902

PUBLICATION DATE: APR 83

TITLE: AESTHETICS AND OZONATION TEAMED UP TO SOLVE WASTEWATER PROBLEMS IN SCENIC AREA.

DESCRIPTOR: *AESTHETICS; *DESIGN; *DISINFECTION; *FACILITIES; *OHIO; *OZONATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 18-19P.

ABSTRACT: DESCRIBED IS THE OLENTANGY ENVIRONMENTAL CONTROL CENTER (OECC) IN DELAWARE COUNTY, OHIO. THE FACILITY IS AN INNOVATIVELY DESIGNED WASTEWATER TREATMENT PLANT THAT NOT ONLY USES OZONE FOR DISINFECTION, BUT ALSO LOOKS LIKE A PARK.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008903

PUBLICATION DATE: APR 83

TITLE: FLORIDA PLANT A WINNER.

DESCRIPTOR: *ADVANCED WASTEWATER TREATMENT; *DESIGN; *FACILITIES; *FLORIDA; *PLANT DESCRIPTIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 19P.

ABSTRACT: DESCRIBED IS THE IRON BRIDGE REGIONAL WATER POLLUTION CONTROL FACILITY IN FLORIDA. THE FACILITY WAS SELECTED AS ONE OF 16 WINNING PROJECTS IN THE 1982 ENGINEERING EXCELLENCE AWARDS COMPETITION. THE FACILITY IS AN ADVANCED WASTEWATER TREATMENT PLANT.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008904

PUBLICATION DATE: APR 83

TITLE: GOING DEEP CUTS SEWER, LIFT STATION COSTS.

PERSONAL AUTHOR: KINCAID, MIKE

DESCRIPTOR: *CALIFORNIA; *CONSTRUCTION; *COSTS; *LIFT STATIONS; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 26-27P.

ABSTRACT: IN ADDITION TO CHALLENGING GEOTECHNICAL AND HYDROLOGIC PROBLEMS ENCOUNTERED DURING CONSTRUCTION OF TWO WASTEWATER COLLECTION SYSTEMS, THE CONTRACTORS ALSO HAD TO DEAL WITH SOME ARCHAEOLOGICAL SITUATIONS. THE PROJECT AT CRESCENT CITY, CALIFORNIA, IS DESCRIBED.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008905

PUBLICATION DATE: APR 83

TITLE: SETTLING QUIETS THE STORM EFFECTS.

PERSONAL AUTHOR: NIXON, G. GARY; HOFFMAN, GARY L.

DESCRIPTOR: *DESIGN; *FACILITIES; *FACILITY MODIFICATION; *OHIO; *PRE-SEDIMENTATION TREATMENT; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: DESCRIBED IS A MODIFICATION OF A WATER TREATMENT PLANT AT SANDUSKY, OHIO.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008906

PUBLICATION DATE: APR 83

TITLE: SEWAGE GENERATION RATES--MYTH VS. MEASUREMENT.

PERSONAL AUTHOR: NEWNHAM, DONALD F.

DESCRIPTOR: *FLORIDA; *FLOWS; *FLOW RATES; *MEASUREMENT; *WASTEWATER COLLECTION; *WASTEWATER SYSTEM FLOW

DESCRIPTIVE NOTE: 29-30P.

ABSTRACT: DESCRIBED IS A METHOD FOR CALCULATING WASTEWATER FLOWS USED BY A FLORIDA COMMUNITY.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008907

PUBLICATION DATE: APR 83

TITLE: MANHOLE I/I STOPPED WITH SPECIAL REPAIRS.

PERSONAL AUTHOR: DRIVER, F. T.

DESCRIPTOR: *INFILTRATION; *INFLOW; *ILLINOIS; *MAINTENANCE; *MANHOLES; *REPAIR PROGRAMS; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 31-32P.

ABSTRACT: NORTHBROOK, ILLINOIS SUCCESSFULLY UNDERTOOK A COMPREHENSIVE MANHOLE REPAIR PROGRAM. USING METHODS INVOLVING REMOTE EQUIPMENT AND RELIABLE SEALANTS, SERIOUS INFILTRATION AND INFLOW WERE REDUCED SUBSTANTIALLY.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008908

PUBLICATION DATE: APR 83

TITLE: KEEPING TABS ON EXCESS CHLORINE.

PERSONAL AUTHOR: INGHRAM, CHARLES W.

DESCRIPTOR: *CHLORINE; *CHLORINE RESIDUAL; *DISINFECTION; *INSTRUMENTS; *MONITORING; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: DESCRIBED IS AN INSTRUMENT FOR MONITORING CHLORINE RESIDUAL IN A TREATED WASTEWATER STREAM.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008909
PUBLICATION DATE: APR 83

TITLE: SOFTWARE SOLVES WATER SUPPLY PROBLEMS.

PERSONAL AUTHOR: ROGERS, HELENE

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *COSTA RICA; *DESIGN; *MANAGEMENT; *PERFORMANCE EVALUATION; *WATER DISTRIBUTION; *WATER SUPPLY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 38-39P.

ABSTRACT: DESCRIBED ARE COMPUTER SOFTWARE USED FOR WATER PROJECTS IN COSTA RICA AND OTHER COUNTRIES. SOME OF THE SOFTWARE CAN ALSO BE USED FOR SEWER DESIGN.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008910

PUBLICATION DATE: APR 83

TITLE: FLUORESCENT DYE AIDS DISTRIBUTION STUDIES.

PERSONAL AUTHOR: GRASSO, DOMENIC; WILLIAMS, ROBERT C.

DESCRIPTOR: *COSTS; *FLOW DISTRIBUTION; *FLUORESCENT DYES; *FLUID FLOW; *MEASUREMENT

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: ANALYSES OF THE HYDRAULIC EFFICIENCY OF FLOW DISTRIBUTION DEVICES HAVE BEEN MADE EASIER WITH THE USE OF A NEW TECHNIQUE USING FLUORESCENT DYES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N4

IRIS ACCESSION NUMBER: EW008941

PUBLICATION DATE: AUG 82

TITLE: A COMPUTER INTERFACE FOR A PERKIN-ELMER 5000 ATOMIC ABSORPTION INSTRUMENT.

PERSONAL AUTHOR: TEUSCHLER, JOHN M.; AND OTHERS

DESCRIPTOR: *ATOMIC ABSORPTION; *CIRCUIT DESCRIPTIONS; *COMPUTER APPLICATIONS; *COMPUTER INTERFACES; *DESIGN

DESCRIPTIVE NOTE: PB82-229485

ABSTRACT: THIS DOCUMENT CONTAINS A DETAILED DESCRIPTION OF AN ASCII CHARACTER BUFFER INTERFACE WHICH IS DESIGNED TO STORE AND FORWARD SERIAL ASCII DATA FROM AN EIA RS-232C INTERFACE. THIS PARTICULAR APPLICATION CONCERNS A PERKIN-ELMER 5000 ATOMIC ABSORPTION INSTRUMENT. THE INTERFACE IS PART OF A LARGER ATOMIC ABSORPTION COMPUTER AUTOMATION SYSTEM CURRENTLY IN OPERATION AT THE EPA ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY - CINCINNATI.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008942

PUBLICATION DATE: SEP 82

TITLE: DETERMINATION OF POLYNUCLEAR AROMATIC HYDROCARBONS IN INDUSTRIAL AND MUNICIPAL WASTEWATERS.

PERSONAL AUTHOR: STRUP, PAUL E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AROMATIC HYDROCARBONS; *HYDROCARBONS; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *POLYNUCLEAR HYDROCARBONS; *PERFORMANCE EVALUATION; *WASTEWATER

DESCRIPTIVE NOTE: PB82-258799

ABSTRACT: A METHOD FOR THE DETERMINATION OF 16 POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) IN WASTEWATER WAS DEVELOPED. THIS METHOD, BASED ON THE USE OF HIGH PERFORMANCE LIQUID CHROMATOGRAPHY WITH ULTRAVIOLET AND FLUORESCENCE DETECTION, IS READILY SUITED FOR DETECTION OF CONDENSED RING AROMATICS IN MANY TYPES OF AQUEOUS SAMPLES. RESULTS OF TESTS ARE ALSO REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008943

PUBLICATION DATE: AUG 82

TITLE: APPLICATION AND EVALUATION OF ANALYTICAL PROCEDURES FOR TRACE METALS, TOTAL CYANIDE AND PHENOLIC.

PERSONAL AUTHOR: GOTTFRIED, GARY J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CYANIDES; *EFFLUENTS; *EVALUATION; *INDUSTRIAL WASTES; *METALS; *PHENOLS; *TRACE METALS

DESCRIPTIVE NOTE: PB82-218512

ABSTRACT: ANALYTICAL PROCEDURES FOR THE DETERMINATION OF TRACE METALS, TOTAL CYANIDE, AND PHENOLICS WERE SYSTEMATICALLY EVALUATED FOR INDUSTRY-WIDE APPLICATION. VALIDATION OF THE METHODOLOGIES AND IDENTIFICATION OF THEIR LIMITATIONS WERE THUS ESTABLISHED BOTH WITHIN SPECIFIC INDUSTRIAL CLASSIFICATIONS AND ACROSS MULTIPLE INDUSTRIAL PROCESSES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008944
PUBLICATION DATE: SEP 82

TITLE: EXECUTIVE SUMMARY FOR THE HYDROLOGICAL SIMULATION PROGRAM FORTRAN (HSPF).

PERSONAL AUTHOR: GRIMSRUD, G. P.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *HYDROLOGY; *MODELS; *MANAGEMENT; *SIMULATIONS; *WATER QUALITY; *WATERSHEDS; *WATER RESOURCES

DESCRIPTIVE NOTE: PB82-231846

ABSTRACT: THIS DOCUMENT INTRODUCES WATER RESOURCE MANAGERS, ENGINEERS, AND PROGRAMMERS TO THE HYDROLOGICAL SIMULATION PROGRAM - FORTRAN (HSPF) AND PROVIDES THEM WITH INFORMATION THAT CAN HELP THEM IN DECIDING WHETHER HSPF WOULD BE PRACTICAL AND USEFUL FOR THEM TO USE. ALTHOUGH DATA REQUIREMENTS ARE EXTENSIVE AND RUNNING COSTS ARE SIGNIFICANT, HSPF IS THOUGHT TO BE THE MOST ACCURATE AND APPROPRIATE MANAGEMENT TOOL PRESENTLY AVAILABLE FOR THE CONTINUOUS SIMULATION OF HYDROLOGY AND WATER QUALITY IN WATERSHEDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008946

PUBLICATION DATE: AUG 82

TITLE: MAINTENANCE AND TESTING OF HYDROLOGICAL SIMULATION PROGRAM--FORTRAN (HSPF).

PERSONAL AUTHOR: JOHANSON, R. C.; KLIEWER, D.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *HSPF; *HYDROLOGY; *MATHEMATICAL MODELS; *MAINTENANCE; *PROGRAM TESTING; *RECOMMENDATIONS; *SIMULATIONS; *WATER QUALITY; *WATER RESOURCES; *WATERSHEDS

DESCRIPTIVE NOTE: PB82-237033

ABSTRACT: THE HYDROLOGICAL SIMULATION PROGRAM FORTRAN (HSPF) IS A MATHEMATICAL MODEL THAT SIMULATES HYDROLOGY AND WATER QUALITY IN NATURAL AND MAN-MADE WATER SYSTEMS. THIS REPORT DESCRIBES THE WORK INVOLVED IN MAINTAINING AND TESTING HSPF OVER A PERIOD OF ONE YEAR FOLLOWING ITS INITIAL DEVELOPMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008947

PUBLICATION DATE: SEP 82

TITLE: ANALYSIS OF MATHEMATICAL MODELS FOR POLLUTANT TRANSPORT AND DISSIPATION.

PERSONAL AUTHOR: AMES, W. F.

DESCRIPTOR: *CHEMICAL REACTIONS; *DIFFUSION; *MATHEMATICAL MODELS; *POLLUTANT DISSIPATION; *POLLUTANT TRANSPORT; *RESEARCH; *RIVERS; *TURBULENT DIFFUSION; *TURBULENT REACTION

DESCRIPTIVE NOTE: PB82-256900

ABSTRACT: FOUR REALISTIC NONLINEAR MODELS OF POLLUTANT TRANSPORT WITH TURBULENT DIFFUSION AND REACTION IN RIVERS WERE STUDIED. EXACT SOLUTIONS FOR ALL THE KINETICS MODELS ARE DESCRIBED. AN ALGORITHM FOR CALCULATING THE RATE CONSTANTS FROM THE EXACT SOLUTIONS IS ALSO PROVIDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008954

PUBLICATION DATE: AUG 82

TITLE: FULL-SCALE EVALUATION OF ACTIVATED BIO-FILTER WASTEWATER TREATMENT PROCESS.

PERSONAL AUTHOR: RAKNESS, KERWIN L.; AND OTHERS

DESCRIPTOR: *ACTIVATED BIO-FILTER; *EVALUATION; *FACILITIES; *MONTANA; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-227505

ABSTRACT: A RELATIVELY NEW BIOLOGICAL TREATMENT CONCEPT CALLED THE ACTIVATED BIO-FILTER (ABF) PROCESS FOR SECONDARY TREATMENT OF MUNICIPAL WASTEWATER WAS TESTED AT HELENA, MONTANA. EXCELLENT OVERALL TREATMENT PERFORMANCE WAS OBSERVED THROUGHOUT THE STUDY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008958

PUBLICATION DATE: AUG 82

TITLE: EVALUATION AND DOCUMENTATION OF THE EFFECTS OF OPERATION AND MAINTENANCE PRACTICES ON THE PERFORMANCE OF SELECTED BIOLOGICAL TREATMENT.

PERSONAL AUTHOR: GRAY, ALBERT C., JR.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL TREATMENT; *EVALUATION; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RECOMMENDATIONS; *SITE VISITS; *TRAINING; *WASTEWATER TREATMENT

38

34

DESCRIPTIVE NOTE: PB82-227513

ABSTRACT: THIS PUBLICATION IS A SUMMARY OF A COMPREHENSIVE EVALUATION OF PUBLICLY OWNED WASTEWATER TREATMENT PLANTS CONDUCTED IN 1975. THE REPORT DEALS WITH THE SECOND PHASE OF A TWO-PART STUDY. CONCLUSIONS AND RECOMMENDATIONS OF THE SECOND PHASE WERE BASED ON COMPREHENSIVE EVALUATIONS CONDUCTED AT 23 TREATMENT FACILITIES. SITE VISIT RESULTS, CAUSES OF POOR PLANT PERFORMANCE, COMPOSITE CORRECTION PROGRAMS, AND CONCLUSIONS AND RECOMMENDATIONS ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008960

PUBLICATION DATE: AUG 82

TITLE: PILOT SCALE EVALUATION OF BIOLOGICAL ACTIVATED CARBON FOR THE REMOVAL OF THM PRECURSORS.

PERSONAL AUTHOR: BLAZE, WILLIAM H.; AND OTHERS

DESCRIPTOR: *ACTIVATED CARBON; *DRINKING WATER; *LOUISIANA; MICROBIOLOGY; *OZONE; *PERFORMANCE EVALUATION; *PILOT PLANTS; THM; *TRIHALOMETHANE; *WATER TREATMENT

DESCRIPTIVE NOTE: PB82-230301

ABSTRACT: THIS PROJECT EVALUATED A METHOD FOR THE REMOVAL OF TRIHALOMETHANE (THM) PRECURSORS FROM SURFACE WATER SOURCES. THE SITE USED WAS IN LOUISIANA. THE PROJECT SHOWED THAT BIOLOGICALLY ENHANCED REMOVAL OF THM PRECURSORS IS POSSIBLE. FULL-SCALE STUDIES ARE RECOMMENDED TO OPTIMIZE THE PROCESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008971

PUBLICATION DATE: JUL 81

TITLE: OVERLAND FLOW TREATMENT OF POULTRY PROCESSING WASTEWATER IN COLD CLIMATES.

PERSONAL AUTHOR: KETCHUM, LLOYD H.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *AGRICULTURE; COSTS; FACILITIES; HYDRAULICS; *INDUSTRIAL WASTES; *LAND TREATMENT; LAGOONS; *OPERATIONS (WASTEWATER); *OVERLAND FLOW; *POULTRY PROCESSING; RECOMMENDATIONS; *TEMPERATURE; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB81-213225

ABSTRACT: LAND TREATMENT OF WASTEWATER USING OVERLAND FLOW METHODS HAS BEEN USED EFFECTIVELY IN WARM CLIMATES. THIS STUDY EVALUATED A FACILITY IN NORTHERN INDIANA WHICH INCLUDED A TREATMENT SYSTEM. THE REPORT DESCRIBES THE FACILITIES AND PRESENTS AND EVALUATES MONITORING DATA FROM 1 1/2 YEARS OF OPERATION. THE PROBLEMS ENCOUNTERED INCLUDING THOSE ASSOCIATED WITH COLD WEATHER OPERATION ARE DESCRIBED TO PREVENT THEIR REPETITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008981

PUBLICATION DATE: AUG 82

TITLE: VIRION AGGREGATION AND DISINFECTION OF WATER BY CHLORINE AND BROMINE.

PERSONAL AUTHOR: SHARP, D. GORDON

DESCRIPTOR: *AGGREGATION; *BROMINE; *CHLORINE; *DISINFECTION; *RESEARCH REPORTS; *VIRUSES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: PB82-230889

ABSTRACT: THE STATE OF AGGREGATION AMONG VIRIONS SUSPENDED IN WATER WAS MEASURED AND QUANTITATIVELY CHARACTERIZED BY SEVERAL METHODS DESCRIBED IN THE REPORT. ALL OF THE VIRUSES TESTED TENDED TO AGGREGATE AT ACID PH. ALL THE VIRUSES TENDED TO AGGREGATE AT LOW IONIC STRENGTH. OTHER RESULTS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008983

PUBLICATION DATE: AUG 82

TITLE: EVALUATION AND DOCUMENTATION OF MECHANICAL RELIABILITY OF CONVENTIONAL WASTEWATER TREATMENT PLANT COMPONENTS.

PERSONAL AUTHOR: SHULTZ, DAVID W.; PARR, VAN B.

DESCRIPTOR: *CONVEYORS; *CONTROLS; *COMPRESSORS; *DIFFUSERS; *EQUIPMENT; *MOTORS; *POWER TRANSMISSIONS; *PUMPS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH; *VALVES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-227539

ABSTRACT: THIS STUDY WAS INITIATED TO DETERMINE THE INSERVICE RELIABILITY, MAINTAINABILITY, AND AVAILABILITY OF SELECTED CRITICAL WASTEWATER TREATMENT PLANT COMPONENTS. COMPONENTS WERE CONSIDERED CRITICAL IF THEIR FAILURE CAUSED AN IMMEDIATE IMPACT ON EFFLUENT QUALITY. SELECTED FOR STUDY WERE PUMPS, POWER TRANSMISSIONS, MOTORS, COMPRESSORS, DIFFUSERS, VALVES, CONTROLS, AND CONVEYORS. INFORMATION CAN BE USED BY DESIGN ENGINEERS AND PLANT OPERATORS TO ASSIST IN SELECTING NEW EQUIPMENT; EXPECTED PERFORMANCE FOR SOME EQUIPMENT CAN BE ESTIMATED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008987

PUBLICATION DATE: SEP 82

TITLE: AN ULTRAVIOLET-VISIBLE SPECTROPHOTOMETER AUTOMATION SYSTEM.

PERSONAL AUTHOR: ROTH, GREGORY S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COMPUTER APPLICATIONS; *AUTOMATED SYSTEMS; *CHLOROPHYLL; *INSTRUMENTATION; *COLOR; *SPECTROPHOTOMETERS

DESCRIPTIVE NOTE: PART I. FUNCTIONAL SPECIFICATIONS, PB82-244369. PART II. USER'S GUIDE, PB82-244377. PART III. PB82-244385. PART I, PART II, AND PART III, SET PB82-244351.

ABSTRACT: THIS REPORT DETAILS THE DEVELOPMENT OF A COMPUTER AUTOMATION SYSTEM FOR COMMERCIALLY AVAILABLE ULTRAVIOLET VISIBLE LIGHT DUAL-BEAM SCANNING SPECTROPHOTOMETERS. THE COMPUTER SYSTEM EMPLOYED IS A DATA GENERAL NOVA 840 MINICOMPUTER WITH AN EXTENDED BASIC LANGUAGE. THE SYSTEM FACILITATES THE ANALYSIS OF CHLOROPHYLL CONCENTRATIONS AND COLOR DETERMINATIONS OF WATERS, AS WELL AS INSTRUMENT QUALITY ASSURANCE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008995

PUBLICATION DATE: APR 83

TITLE: LEADERSHIP TRAINING IN PUBLIC WORKS.

PERSONAL AUTHOR: PENNINGTON, JUDITH

DESCRIPTOR: COMMUNICATION SKILLS; *CONNECTICUT; *LEADERSHIP; *MANAGEMENT; PLANNING; PROBLEM SOLVING; *PERSONNEL; *PUBLIC WORKS; *SUPERVISORS; *TRAINING

DESCRIPTIVE NOTE: 35-36P.

ABSTRACT: DESCRIBED IS LEADERSHIP TRAINING FOR PUBLIC WORKS MANAGERS IN STAMFORD, CONNECTICUT. THE PROGRAM HAS HELPED THE MANAGERS AND HELPED THE PUBLIC WORKS DEPARTMENT MEET ITS GOALS.

AVAILABILITY: AMERICAN CITY & COUNTY; V98 N4

IRIS ACCESSION NUMBER: EW008996

PUBLICATION DATE: APR 83

TITLE: IF IT DOESN'T MOVE, PAINT IT.

PERSONAL AUTHOR: O'CONNOR, JOHN

DESCRIPTOR: *COSTS; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *PAINTING; *PREVENTIVE MAINTENANCE

DESCRIPTIVE NOTE: 37-42P.

ABSTRACT: THIS ARTICLE STRESSES THE USEFULNESS OF APPLYING PROTECTIVE COATINGS TO PRESERVE AND PROTECT MATERIALS. THE NEED FOR PROPER COATINGS AND PROPER PREPARATION FOR COATINGS IS STRESSED. COSTS FOR PREPARING AND PAINTING ARE PRESENTED. THE SERVICE LIFE OF VARIOUS COATINGS ARE INCLUDED.

AVAILABILITY: AMERICAN CITY & COUNTY; V98 N4

IRIS ACCESSION NUMBER: EW008997

PUBLICATION DATE: APR 83

TITLE: THIS POTW THINKS ZINC.

DESCRIPTOR: *CORROSION; *EQUIPMENT; *FACILITIES; *GALVANIZING; *MAINTENANCE; *WASTEWATER TREATMENT; *ZINC

DESCRIPTIVE NOTE: 54P.

ABSTRACT: DESCRIBED IS THE DETROIT WASTEWATER TREATMENT PLANT WHICH USES ZINC GALVANIZING TO COVER STEEL TO RESIST CORROSION. MATERIALS THAT ARE GALVANIZED ARE DESCRIBED.

AVAILABILITY: AMERICAN CITY & COUNTY; V98 N4

IRIS ACCESSION NUMBER: EW008998

PUBLICATION DATE: APR 83

TITLE: POLYMERS BOOST SLUDGE FILTER PRESS DEWATERABILITY.

PERSONAL AUTHOR: BARKMAN, JAMES

DESCRIPTOR: *COSTS; *OPERATIONS (WASTEWATER); *ORGANIC POLYMERS; SLUDGE; *SLUDGE DEWATERING; *WASHINGTON; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 62-63P.

ABSTRACT: DESCRIBED ARE OPERATIONS AT THE ABERDEEN, WASHINGTON WASTEWATER TREATMENT PLANT. SLUDGE DEWATERING COSTS WERE REDUCED BY USING ORGANIC POLYMERS INSTEAD OF FERRIC CHLORIDE AND LIME.

AVAILABILITY: AMERICAN CITY & COUNTY; V98 N4

IRIS ACCESSION NUMBER: EW003999

PUBLICATION DATE: APR 83

TITLE: WATER ANALYSIS.

PERSONAL AUTHOR: FISHMAN, M. J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL CHEMISTRY; *ANALYTICAL TECHNIQUES; *CHEMISTRY; CONTAMINANTS; *HEAVY METALS; *LITERATURE REVIEWS; *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *WATER ANALYSIS; WATER QUALITY; WATER TREATMENT

DESCRIPTIVE NOTE: 102R-133RP.

ABSTRACT: THIS LITERATURE REVIEW OF ANALYTICAL CHEMISTRY APPLIED TO WATER ANALYSIS COVERS THE PERIOD FROM OCTOBER 1980 THROUGH SEPTEMBER 1982. TOPICS COVERED IN THIS REVIEW INCLUDE WATER AND WASTEWATER TREATMENT. SPECIFIC ATTENTION IS FOCUSED ON TECHNIQUES FOR ALKALAI METALS, HEAVY METALS, SULFER COMPOUNDS, NITROGEN COMPOUNDS, GASES, AND ORGANIC COMPOUNDS.

AVAILABILITY: ANALYTICAL CHEMISTRY REVIEWS; V55 N5

IRIS ACCESSION NUMBER: EW009000

PUBLICATION DATE: MAY 83

TITLE: TREATING SURFACE WATERS FOR COMMUNITIES IN DEVELOPING COUNTRIES.

PERSONAL AUTHOR: SCHULZ, CHRISTOPHER R.; OKUN, DANIEL A.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *DEVELOPING COUNTRIES; *MAINTENANCE; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 212-219P.

ABSTRACT: WATER TREATMENT PLANTS IN DEVELOPING COUNTRIES SHOULD USE SIMPLIFIED TECHNOLOGIES THAT REQUIRE LITTLE AUTOMATION OR MECHANIZATION TO LOWER CAPITAL COSTS SIGNIFICANTLY. OPERATIONS AND MAINTENANCE SHOULD ALSO BE LESS COSTLY AND MORE SUITABLE FOR LOCAL LABOR CONDITIONS. USE CAN BE MADE OF NATURAL COAGULANTS DERIVED FROM PLANTS AND ANIMALS TO REDUCE THE COST OF TREATMENT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N5

IRIS ACCESSION NUMBER: EW009001

PUBLICATION DATE: MAY 83

TITLE: SIMPLIFYING DESIGN OF WATER TREATMENT PLANTS FOR DEVELOPING COUNTRIES.

PERSONAL AUTHOR: WAGNER, E. GLENN

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *DESIGN; DEVELOPING COUNTRIES; *ECONOMICS; *FACILITIES; *MAINTENANCE; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 220-223P.

ABSTRACT: WATER TREATMENT PLANTS IN DEVELOPING COUNTRIES SHOULD BE LOW IN FIRST COST AND EASY AND ECONOMIC TO OPERATE. MAXIMUM USE OF GRAVITY AND HYDRAULIC ENERGY IN THE TREATMENT PROCESS AND USE OF LABOR INSTEAD OF EQUIPMENT IN PLANT OPERATION RESULT IN THE MOST EFFECTIVE AND ECONOMICAL TREATMENT PLANT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N5

IRIS ACCESSION NUMBER: EW009002

PUBLICATION DATE: MAY 83

TITLE: OVERVIEW OF RURAL WATER AND SANITATION PROGRAMS FOR LATIN AMERICA.

PERSONAL AUTHOR: DONALDSON, DAVID

DESCRIPTOR: *ADMINISTRATION; *ECONOMICS; *FINANCING; *LATIN AMERICA; *PLANNING; *RURAL AREAS; *SANITATION; *WATER SUPPLY; *TRAINING; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 225-231P.

ABSTRACT: THOUGH MANY RURAL INHABITANTS OF LATIN AMERICA NOW HAVE ACCESS TO SAFE WATER, MILLIONS REMAIN UNSERVED, AND INCREASING POPULATIONS PLACE ADDED STRESS ON EXISTING SYSTEMS. IMPROVEMENTS ARE STILL GREATLY NEEDED IN ADMINISTRATION AND FINANCING OF WATER AND SANITATION PROJECTS AND FOR EXTENSIVE TRAINING PROGRAMS FOR PARAPROFESSIONAL RURAL WATER TECHNICIANS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N5

IRIS ACCESSION NUMBER: EW009003

PUBLICATION DATE: MAY 83

TITLE: USING BY-PRODUCTS OF AN IRON REMOVAL PROCESS TO IMPROVE WATER TREATMENT.

PERSONAL AUTHOR: CURRY, MICHAEL D.; REYNOLDS, MARTY

DESCRIPTOR: *DRINKING WATER; *GROUNDWATER; *IRON; *MANGANESE; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 246-248P.

ABSTRACT: REPORTED IS A STUDY TO REDUCE IRON AND MANGANESE FROM GROUNDWATER IN A VILLAGE IN ILLINOIS. BOTH MANGANESE AND IRON WERE REDUCED TO ACCEPTABLE LEVELS AND CORROSIVE

CONDITIONS IN THE DISTRIBUTION SYSTEM WERE REDUCED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N5

IRIS ACCESSION NUMBER: EW009004

PUBLICATION DATE: MAY 83

TITLE: USING BACKWASHING KINETICS TO EVALUATE ATTACHMENT MECHANISMS AND FORCES DURING FILTRATION.

PERSONAL AUTHOR: TOREGAS, GEORGE

DESCRIPTOR: *BACKWASHING; *FILTRATION; *MODELS; *OPERATIONS (WATER); *PARTICLE REMOVAL; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 254-260P.

ABSTRACT: A MODEL IS OFFERED FOR EVALUATING THE VARIOUS MODES INVOLVED IN PARTICLE REMOVAL FROM WATER BY MEANS OF DEEP BED FILTRATION. BASED ON BACKWASHING KINETICS, THIS METHOD TAKES INTO ACCOUNT THE MECHANISMS ASSOCIATED WITH PARTICLE ATTACHMENT, PARTICLE AGGLOMERATION, AND PARTICLE DETACHMENT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N5

IRIS ACCESSION NUMBER: EW009005

PUBLICATION DATE: SPR 83

TITLE: HYDRAULICALLY DRIVEN PIEZOMETERS FOR MONITORING IN SOFT SEDIMENTS.

PERSONAL AUTHOR: DESAULNIERS, DONALD E.

DESCRIPTOR: *GROUNDWATER; *INSTRUMENTATION; *MONITORING; *PIEZOMETERS; *SEDIMENTS

DESCRIPTIVE NOTE: 16-20P.

ABSTRACT: DESCRIBED IS AN ALTERNATIVE METHOD OF PIEZOMETER INSTALLATION DESIGNED ESPECIALLY FOR FORMATIONS THAT ARE PRONE TO CAVING.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IRIS ACCESSION NUMBER: EW009006

PUBLICATION DATE: SPR 83

TITLE: SOURCES OF SPATIAL-TEMPORAL VARIABILITY IN GROUNDWATER QUALITY DATA AND METHODS OF CONTROL.

PERSONAL AUTHOR: KEITH, SUSAN J.; AND OTHERS

DESCRIPTOR: *ARIZONA; *CASE STUDIES; *DATA COLLECTION; *GROUNDWATER; *LABORATORY PROCEDURES; *MONITORING; *QUALITY CONTROL; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 21-32P.

ABSTRACT: THIS CASE STUDY IN ARIZONA DISCUSSES A GROUNDWATER MONITORING PROGRAM AND DISCUSSES CONTROLLING OR ACCOMMODATING SOURCES OF VARIABILITY.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IRIS ACCESSION NUMBER: EW009007

PUBLICATION DATE: SPR 83

TITLE: GROUND-WATER MONITORING SYSTEM CONSIDERATIONS.

PERSONAL AUTHOR: NACHT, STEVE J.

DESCRIPTOR: *DATA COLLECTION; *DESIGN; *GROUNDWATER; *LABORATORY PROCEDURES; *MONITORING; *MONITORING PROGRAMS; *MONITORING SYSTEMS; *WATER QUALITY

DESCRIPTIVE NOTE: 33-39P.

ABSTRACT: DISCUSSED ARE FACTORS THAT SHOULD BE CONSIDERED WHEN DESIGNING A GROUNDWATER MONITORING SYSTEM FOR THE COLLECTION AND ANALYSIS OF WATER QUALITY DATA.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IRIS ACCESSION NUMBER: EW009008

PUBLICATION DATE: SPR 83

TITLE: THE USE OF RECONNAISSANCE ELECTROMAGNETIC METHODS TO MAP CONTAMINANT MIGRATION.

PERSONAL AUTHOR: GREENHOUSE, JOHN P.; SLAINE, DAVID D.

DESCRIPTOR: *CASE STUDIES; *CONTAMINANTS; *CONTAMINANT MIGRATION; *ELECTROMAGNETIC METHODS; *GEOPHYSICS; *GROUNDWATER; *INSTRUMENTATION; *MONITORING; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 47-59P.

ABSTRACT: NINE CASE STUDIES OF THE USE OF RECONNAISSANCE ELECTROMAGNETIC METHODS TO MAP CONTAMINANT MIGRATION CAN HELP DETERMINE WHICH GEOPHYSICAL TECHNIQUES ARE APPLICABLE TO A GIVEN PROBLEM.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IS ACCESSION NUMBER: EW009009

BLICATION DATE: SPR 83

TLE: POTENTIAL SOURCES OF CONTAMINATION IN GROUND-WATER NITORING.

RSONAL AUTHOR: FETTER, C. W., JR.

SCRIPTOR: *CONSTRUCTION MATERIALS; *CONTAMINATION; RILLING TECHNIQUES; *GROUNDWATER; *ERROR ANALYSIS; ONITORING; *MONITORING WELLS; *SAMPLING; *WATER QUALITY; ELLS

SCRIPTIVE NOTE: 60-65P.

STRACT: DISCUSSED ARE POTENTIAL SOURCES OF ERROR IN OUNDWATER MONITORING THAT CAN LEAD TO CONTAMINATION, CLUDING DRILLING TECHNIQUES, CONSTRUCTION MATERIALS, AND MPLE COLLECTION METHODS.

AILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IS ACCESSION NUMBER: EW009010

BLICATION DATE: SPR 83

TLE: GUIDELINES FOR GROUND-WATER QUALITY ASSESSMENTS FOR ZARDOUS WASTE FACILITIES.

RSONAL AUTHOR: POPKIN, BARNEY P.

SCRIPTOR: *FACILITIES; *GROUNDWATER; *GUIDELINES; AZARDOUS WASTES; *LABORATORY PROCEDURES; *MONITORING; ASTE DISPOSAL; *WASTE DISPOSAL SITES; *WATER QUALITY; ATER QUALITY ASSESSMENT

SCRIPTIVE NOTE: 65-70P.

STRACT: REVIEWED ARE THE SEQUENCE, PURPOSES, HIGHLIGHTS D PITFALLS OF MAKING GROUNDWATER QUALITY ASSESSMENTS FOR ZARDOUS WASTE FACILITIES.

AILABILITY: GROUND WATER MONITORING REVIEW; V3 N2

IS ACCESSION NUMBER: EW009014

BLICATION DATE: MAY 83

TLE: PUTTING MICROCOMPUTERS TO PRACTICAL USE ON WATER AND STEWATER PROJECTS.

RSONAL AUTHOR: GIGUERE, PAUL

SCRIPTOR: *COMPUTER APPLICATIONS; COMPUTER PROGRAMS; OMPUTER SOFTWARE; *DATA MANAGEMENT; *PLANNING; *OPERATIONS ATER); *OPERATIONS (WASTEWATER); WASTEWATER TREATMENT; TER TREATMENT

SCRIPTIVE NOTE: 50-52,90P.

ABSTRACT: DESCRIBED ARE COMPUTER PROGRAMS FOR USE BY MUNICIPAL ENGINEERS FOR WATER AND WASTEWATER PROJECTS. INCLUDED ARE PROGRAMS FOR SEWER PLANNING STUDIES, TREATMENT PLANT DATA MANAGEMENT, WATER ALLOCATION, AND GROUNDWATER POLLUTION.

AVAILABILITY: PUBLIC WORKS; V114 N5

IRIS ACCESSION NUMBER: EW009015

PUBLICATION DATE: MAY 83

TITLE: COMPUTERS IN LOCAL GOVERNMENT: ACQUIRING A COMPUTER SYSTEM.

PERSONAL AUTHOR: NORRIS, DONALD F.

DESCRIPTOR: *COMPUTER APPLICATIONS; *GUIDELINES; *IMPLEMENTATION; *LOCAL GOVERNMENT; *MANAGEMENT; *PERFORMANCE EVALUATION; *PLANNING; *SELECTION CRITERIA

DESCRIPTIVE NOTE: 63-67P.

ABSTRACT: PRESENTED ARE GUIDELINES TO BE FOLLOWED BY A COMMUNITY THAT HAS DECIDED TO ACQUIRE A COMPUTER SYSTEM AND TO AUTOMATE.

AVAILABILITY: PUBLIC WORKS; V115 N5

IRIS ACCESSION NUMBER: EW009016

PUBLICATION DATE: MAY 83

TITLE: NEW USES FOUND FOR CATCH BASIN CLEANER.

PERSONAL AUTHOR: SLABAUGH, LEON

DESCRIPTOR: *EQUIPMENT; *MAINTENANCE; *REPAIRS; *SEWER BASIN CLEANERS; *SEWERS; *WATER MAINS

DESCRIPTIVE NOTE: 74P.

ABSTRACT: UNUSUAL APPLICATIONS FOR A SEWER AND A CATCH BASIN CLEANER ARE REVIEWED.

AVAILABILITY: PUBLIC WORKS; V114 N5

IRIS ACCESSION NUMBER: EW009017

PUBLICATION DATE: MAY 83

TITLE: SEWER SYSTEM REHABILITATION BY THE NUMBERS.

PERSONAL AUTHOR: KIPP, JERRY S.

DESCRIPTOR: *CONSTRUCTION; *ENGINEERING; *CONSTRUCTION INSPECTION; *MAINTENANCE; *REHABILITATION; *REPAIRS; *SEWERS; *WASTEWATER COLLECTION

CRIPTIVE NOTE: 75-76P.

TRACT: A THREE STEP REHABILITATION PROCESS FOR SEWER TEMS IS DESCRIBED.

ILABILITY: PUBLIC WORKS; V114 N5

S ACCESSION NUMBER: EW009018

LICATION DATE: MAY 83

LE: RESERVOIR TREATMENT SOLVES SHORT FILTER RUNS.

SONAL AUTHOR: DICE, JACK; BEER, CHARLES

CRIPTOR: *ALGAE; *COLORADO; *FILTRATION; *OPERATIONS TER); *POTASSIUM PEMANGANATE; *WATER SUPPLY; *WATER ATMENT

CRIPTIVE NOTE: 73-79P.

TRACT: THIS ARTICLE DESCRIBES HOW AN ALGAE PROBLEM WAS VED BY TREATMENTWITH AN OXIDIZING AGENT. THE RESERVOIR ATED WAS LOCATED IN COLORADO.

ILABILITY: PUBLIC WORKS; V114 N5

S ACCESSION NUMBER: EW009021

LICATION DATE: MAY 83

LE: AN INTRODUCTION TO COMPUTER-BASED LEARNING.

SONAL AUTHOR: REYNOLDS, ANGUS

CRIPTOR: *COMPUTERS; *COMPUTER APPLICATIONS; *COMPUTER ISTED INSTRUCTION; *INDIVIDUALIZED INSTRUCTION; STRUCTION; *LEARNING; *PROGRAMED LEARNING

CRIPTIVE NOTE: 34-38P.

TRACT: COMPUTER-MANAGED INSTRUCTION, COMPUTER-ASSISTED TRUCTION, AND COMPUTER SUPPORTED LEARNING RESOURCES ARE ENT TOOLS FOR THE LEARNING SPECIALIST. THIS ARTICLE VIDES AN INTRODUCTION TO COMPUTER-BASED LEARNING.

ILABILITY: TRAINING & DEVELOPMENT JOURNAL; V37 N5

S ACCESSION NUMBER: EW009022

LICATION DATE: MAY 83

LE: DECISION POINTS IN PLANNING THE EVALUATION OF INING.

SONAL AUTHOR: DOPYERA, JOHN; PITONE, LOUISE

CRIPTOR: *DATA ANALYSIS; *DATA COLLECTION; *DECISION MAKING; *EVALUATION; *PLANNING; *TRAINING

DESCRIPTIVE NOTE: 66-71P.

ABSTRACT: ANSWERING EIGHT SPECIFIC QUESTIONS BEFORE YOU BEGIN AN EVALUATION EFFORT WILL HELP YOU STAY CONSISTENT WITH THE ORGANIZATION'S GOALS. THESE QUESTIONS ARE PRESENTED AND BRIEFLY DISCUSSED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V37 N5

IRIS ACCESSION NUMBER: EW009023

PUBLICATION DATE: MAY 83

TITLE: QUALITY CIRCLES USING SMALL GROUP FORMATION.

PERSONAL AUTHOR: SHIPPER, FRANK

DESCRIPTOR: *GROUP BEHAVIOR; *MANAGEMENT; *ORGANIZATIONAL DEVELOPMENT; *QUALITY CIRCLES; *PROBLEM SOLVING; *SMALL GROUPS; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 80-84P.

ABSTRACT: WHEN THE WORK ENVIRONMENT IS DESIGNED TO PROMOTE CONSTRUCTIVE, MEANINGFUL GROUP BEHAVIOR, BOTH THE INDIVIDUAL AND THE ORGANIZATION PROFIT. THIS ARTICLE DESCRIBES THE USE OF QUALITY CIRCLES IN SMALL GROUPS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V37 N5

IRIS ACCESSION NUMBER: EW009028

PUBLICATION DATE: MAY 83

TITLE: WHY NOT CHARGE FOR STORM DRAINAGE?

DESCRIPTOR: *COSTS; *ECONOMIC FACTORS; FACILITIES; LAND USE; LEGAL ASPECTS; PLANNING; *RUNOFF; *STORMWATER; USER FEES; *UTILITIES; *WATER DISTRIBUTION; *WATERSHED MANAGEMENT

DESCRIPTIVE NOTE: 45-46P.

ABSTRACT: THIS ARTICLE EXAMINES THE CONCEPT OF STORMWATER DRAINAGE UTILITIES. DISCUSSION IS FOCUSSED ON THE EQUITY OF CHARGING CONTRIBUTORS OF STORMWATER FLOW FOR THE COST OF FACILITIES DESIGNED TO HANDLE RUNOFF. TOPICS ALSO EXAMINED INCLUDE FISCAL RESOURCES, MASTER DRAINAGE PLANS, AND DRAINAGE ORDINANCES.

AVAILABILITY: AMERICAN CITY & COUNTY; V98 N5

IRIS ACCESSION NUMBER: EW009029

PUBLICATION DATE: MAY 83

TITLE: THE 1982 NEEDS SURVEY--SIXTH IN A SERIES.

DESCRIPTOR: *DESIGN; *CONSTRUCTION NEEDS; *CONSTRUCTION GRANTS; *EPA; *FACILITIES; *FEDERAL ROLE; *FUNDING; *FACILITY NEEDS; *SEWERS; SLUDGE; *SURVEYS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 432-435P.

ABSTRACT: REPORTED IS THE SIXTH BIENNIAL NEEDS SURVEY RELEASED BY THE U.S. E.P.A. THE DATA AND COST ESTIMATES IN THIS SURVEY SERVE AS PRIMARY INFORMATION FOR CONGRESSIONAL ALLOTMENT OF CONSTRUCTION GRANT FUNDING TO STATES. THE SURVEY ALSO PROVIDES COMPREHENSIVE TECHNICAL AND COST INFORMATION FOR MANAGEMENT OF THE CONSTRUCTION GRANTS PROGRAM ITSELF.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009030

PUBLICATION DATE: MAY 83

TITLE: REFLECTIONS ON SEVEN DECADES OF ACTIVATED SLUDGE HISTORY.

PERSONAL AUTHOR: ALLEMAN, JAMES E.; PRAKASAM, T. B. S.

DESCRIPTOR: *ACTIVATED SLUDGE; *FACILITIES; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER); *PATENTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 436-443P.

ABSTRACT: DESCRIBED IS THE HISTORICAL EVOLUTION OF ACTIVATED SLUDGE TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009031

PUBLICATION DATE: MAY 83

TITLE: COST OF CLEAN WATER--IMPACT ON SMALL COMMUNITIES.

PERSONAL AUTHOR: SMIT, RAYMOND J.; CAHPIN, WENDY A.

DESCRIPTOR: *FACILITY NEEDS; *FUNDING; *OPERATIONS (WASTEWATER); *RURAL AREAS; *SMALL COMMUNITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 444-447P.

ABSTRACT: REPORTED IS THE IMPACT OF GRANT REDUCTIONS AND CHANGES IN THE CLASSIFICATION OF ELIGIBLE PROJECT COSTS ON WASTEWATER TREATMENT IN SMALL COMMUNITIES. SMALL COMMUNITIES HAVE RECEIVED A DISPROPORTIONATELY SMALL SHARE OF EPA GRANTS. SMALL COMMUNITIES NOW HAVE A SUBSTANTIAL BACKLOG OF NEEDED PROJECTS. POSSIBLE SOLUTIONS ARE CONSIDERED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009032

PUBLICATION DATE: MAY 83

TITLE: MEASURING ANAEROBIC SLUDGE DIGESTION AND GROWTH BY A SIMPLE ALKALIMETRIC TITRATION.

PERSONAL AUTHOR: JENKINS, S. R.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANAEROBIC DIGESTION; *ALKALINITY; *DIGESTION; LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); *PH; *TITRATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 448-453P.

ABSTRACT: A NEW ALKALINITY TITRATION IS PROPOSED FOR EVALUATING ANAEROBIC DIGESTOR ACTIVITY. THE PROPOSED TEST ALLOWS FOR DIRECT DETERMINATION OF USABLE BICARBONATE ALKALINITY WHILE EXCLUDING INACCURATE INTERFERENCES DUE TO COMMONLY FOUND ACETIC AND PROPIOMIC ACIDS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009033

TITLE: ROLE OF AMMONIA-N IN SECONDARY EFFLUENT CHLORINATION.

PERSONAL AUTHOR: DHALIWAL, BHUPINDER S.; BAKER, ROBERT A.

DESCRIPTOR: *AMMONIA; *CHLORINATION; *DISINFECTION; *NITROGEN; *OPERATIONS (WASTEWATER); *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 454-456P.

ABSTRACT: UNLIKE OTHER CONSTITUENTS OF SECONDARY EFFLUENT, AMMONIA CAN INCREASE OR DECREASE THE CHLORINE DEMAND, DEPENDING ON THE CIRCUMSTANCES. THIS ARTICLE DISCUSSES CONDITIONS UNDER WHICH AMMONIA INCREASES OR DECREASES SECONDARY EFFLUENT CHLORINE DEMAND AND HOW CHLORINE DEMAND AFFECTS DISINFECTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009034

PUBLICATION DATE: MAY 83

TITLE: CURRENT STATE-OF-THE-ART OF WASTEWATER DISINFECTION.

PERSONAL AUTHOR: VENOSA, ALBERT D.

CRIPTOR: *CHLORINATION; *DISINFECTION; *OZONATION;
ERATIONS (WASTEWATER); *RESEARCH REVIEWS; *ULTRAVIOLET
ADIATION; *WASTEWATER TREATMENT

CRIPTIVE NOTE: 457-466P.

TRACT: ALTERNATIVES TO CHLORINE DISINFECTION ARE BEING
D, BUT SEVERAL QUESTIONS ABOUT THEIR OVERALL EFFICACY
LL REMAIN TO BE ANSWERED. THE PURPOSE OF THIS PAPER IS TO
IEW THE CURRENT STATE-OF-THE-ART OF MUNICIPAL WASTEWATER
INFECTION TECHNOLOGIES. TECHNOLOGIES REVIEWED ARE LIMITED
CHLORINATION, OZONATION, AND ULTRAVIOLET IRRADIATION.

ILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
N5

3 ACCESSION NUMBER: EW009035

LICATION DATE: MAY 83

LE: AEROBIC BIOLOGICAL TREATMENT OF NITROGEN-DEFICIENT
ANIC WASTEWATERS.

SONAL AUTHOR: EMERSON, SHARI L.; SHERRARD, JOSEPH H.

CRIPTOR: *AEROBIC BIOLOGICAL TREATMENT; *ACTIVATED
DGE PROCESS; *NITROGEN; *OPERATIONS (WASTEWATER);
STEWATER TREATMENT

CRIPTIVE NOTE: 467-471P.

TRACT: THE TYPE OF NITROGEN SUPPLIED IN TREATING
RIENT-DEFICIENT WASTES CAN AFFECT EFFLUENT QUALITY,
ALINITY, AND WASTE SLUDGE PRODUCTION. THIS ANALYSIS IS
IGNED TO BE HELPFUL TO DESIGN ENGINEERS AND WASTEWATER
ATMENT PLANT MANAGERS CONFRONTED WITH TREATMENT PROBLEMS
SING FROM NITROGEN-DEFICIENT ORGANIC WASTEWATER.

ILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
N5

S ACCESSION NUMBER: EW009036

LICATION DATE: MAY 83

LE: MUNICIPAL APPLICATION OF SEQUENCING BATCH TREATMENT.

SONAL AUTHOR: IRVINE, R. L.; AND OTHERS

CRIPTOR: *BATCH TREATMENT; *BIOLOGICAL TREATMENT;
NTROL TECHNOLOGY; *INDIANA; *OPERATIONS (WASTEWATER);
CHNOLOGY; *WASTEWATER TREATMENT

CRIPTIVE NOTE: 484-488P.

TRACT: NEW CONTROL TECHNOLOGY HAS SPURRED INTEREST IN
CH OPERATION OF BIOLOGICAL TREATMENT, WHICH HAS NOW BEEN
PTED FOR FULL-SCALE OPERATION. CONVERSION OF A PLANT IN
IANA TO THIS PROCESS IS DESCRIBED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009037

PUBLICATION DATE: MAY 83

TITLE: EFFECTS OF OZONE ON THE BIODEGRADABILITY OF BIOREFRACTORY POLLUTANTS.

PERSONAL AUTHOR: MEDLEY, DAVID R.; STOVER, ENOS L.

DESCRIPTOR: *BIODEGRADABILITY; *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; *OZONE; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 489-494P.

ABSTRACT: OZONATION CAN OFTEN IMPROVE BIODEGRADABILITY OF REFRACTORY ORGANICS, BUT TREATABILITY STUDIES ARE NECESSARY FOR EACH COMPOUND. THE PURPOSE OF THIS STUDY WAS TO DETERMINE OZONES EFFECT ON THREE ORGANIC COMPOUNDS: 1,2-DICHLOROPROPANE, ACRYLONITRILE, AND 2,4-DINITROPHENOL. RESULTS ARE REPORTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009038

PUBLICATION DATE: MAY 83

TITLE: CAPACITY OF NATURAL WETLANDS TO REMOVE NUTRIENTS FROM WASTEWATER.

PERSONAL AUTHOR: NICHOLS, DALE S.

DESCRIPTOR: *EFFLUENTS; *MODELS; *NITROGEN; *PHOSPHORUS; *RESEARCH REPORTS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WETLANDS

DESCRIPTIVE NOTE: 495-505P.

ABSTRACT: THIS PAPER REVIEWS THE MECHANISMS BY WHICH WETLANDS REMOVE WASTEWATER NUTRIENTS AND SYNTHESIZES DATA FROM THE LITERATURE INTO A MODEL OF THE RELATIONS BETWEEN NITROGEN (N) AND PHOSPHORUS (P) APPLICATION RATES AND EFFICIENCY OF N AND P REMOVAL.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N5

IRIS ACCESSION NUMBER: EW009039

PUBLICATION DATE: MAY 83

TITLE: CHLORIDE POLLUTION OF THE GREAT LAKES.

SONAL AUTHOR: SONZOGNI, WILLIAM C.; AND OTHERS

CRIPTOR: *CHLORIDE; *ENVIRONMENTAL IMPACT; *GREAT LAKES; KES; *MANAGEMENT; *MODELS; *POLLUTION; *WATER POLLUTION TROL

CRIPTIVE NOTE: 513-521P.

TRACT: SUMMARIZED ARE CURRENT ESTIMATES OF CHLORIDE UTS TO THE GREAT LAKES FROM VARIOUS SOURCES. CHANGES THAT E OCCURRED ARE EVALUATED. A MODEL IS USED TO PROJECT URE CHLORIDE LEVELS AND MANAGEMENT IMPLICATIONS OF RENT AND FUTURE LEVELS ARE DISCUSSED.

ILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; N5

S ACCESSION NUMBER: EW009040

LICATION DATE: MAY 83

LE: FLOW MEASUREMENT IN SEWER LINES BY THE DYE DILUTION HOD.

SONAL AUTHOR: GUTIERREZ, ALBERTO F.; SIU, HANKAY

CRIPTOR: *ANALYTICAL TECHNIQUES; *DYE DILUTION; *FLOW SUREMENT; *MANNING EQUATION; *SEWERS; *WASTEWATER LECTION; *WASTEWATER FLOWS

CRIPTIVE NOTE: 531-535P.

TRACT: ANALYSIS OF DYE DILUTION DATA WITH A CALIBRATED NING EQUATION PROVIDES AN ACCURATE MEASURE OF ROUGHNESS FICIENT AND VELOCITY DISTRIBUTION PROFILE IN SEWERS. S PAPER IS DEVOTED TO A DISCUSSION OF THE METHODOLOGY FOR CONTINUOUS MONITORING OF FLOWS IN GRAVITY LINES.

ILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; N5

S ACCESSION NUMBER: EW009063

LICATION DATE: MAY 83

LE: LONG-DISTANCE WATER TRANSFER: A CHINESE CASE STUDY INTERNATIONAL EXPERIENCES.

SONAL AUTHOR: BISWAS, ASIT K.; AND OTHERS

CRIPTOR: *CASE STUDIES; *CHINA; *ENVIRONMENTAL IMPACTS; EARCH; *WATER TRANSFER; *WATER DISTRIBUTION; *WATER OURCES; *WATER SUPPLY; *WORLD PROBLEMS

CRIPTIVE NOTE: 403P.

TRACT: THIS PUBLICATION INCLUDES SIX PAPERS ON LONG-ANCE WATER TRANSFER IN SEVERAL COUNTRIES. IN ADDITION, PAPERS ARE INCLUDED ON WATER TRANSFER PROBLEMS, RONMENTAL IMPACTS AND RESEARCH IN EAST CHINA.

AVAILABILITY: UNIPUB, 1180 AVENUE OF THE AMERICAS, NEW YORK, NY 10036

IRIS ACCESSION NUMBER: EW009030

PUBLICATION DATE: 83

TITLE: TREATMENT, RECOVERY, AND DISPOSAL PROCESSES FOR RADIOACTIVE WASTES: RECENT ADVANCES.

PERSONAL AUTHOR: DUFFY, J. I.

DESCRIPTOR: *HAZARDOUS WASTES; *PATENTS; *RADIOACTIVE WASTES; *WASTE DISPOSAL; *WASTE RECOVERY; *WASTE TREATMENT

DESCRIPTIVE NOTE: 287P. PRICE: $39.00

ABSTRACT: THIS IS A COMMERCIALLY-ORIENTED COLLECTION OF U.S. PATENT OFFICE DESCRIPTIONS OF RECENTLY PATENTED PRODUCTS AND PROCESSES. THE INFORMATION IS VERY TECHNICAL. THE GUIDE COVERS JANUARY 1975 TO MAY 1982.

AVAILABILITY: NOYES DATA CORP., MILL ROAD, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW009031

PUBLICATION DATE: 82

TITLE: 12TH ANNUAL REPORT OF THE U.S. COUNCIL ENVIRONMENTAL QUALITY FOR 1981.

DESCRIPTOR: *AIR QUALITY; *ENVIRONMENTAL QUALITY; *NATURAL RESOURCES; *REPORTS; *TOXIC SUBSTANCES; *WASTE MANAGEMENT; *WATER QUALITY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: PRICE: $6.50

ABSTRACT: THE PUBLICATION DISCUSSES THE PRIME ENVIRONMENTAL ISSUES OF AIR AND WATER QUALITY, WASTE MANAGEMENT, TOXIC SUBSTANCES, NATURAL RESOURCES, AND GLOBAL PROBLEMS AS THEY APPEARED TO THIS PRESIDENTIAL OFFICE IN 1981.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW009082

PUBLICATION DATE: JAN 83

TITLE: WASTES IN THE OCEAN - VOLUME 1: INDUSTRIAL AND SEWAGE WASTES IN THE OCEAN.

PERSONAL AUTHOR: DUEDALL, IVER W.; AND OTHERS

DESCRIPTOR: *BIOLOGY; *CHEMICAL REACTIONS; *ENVIRONMENTAL EFFECTS; *INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIAL; *MANAGEMENT; *MODELS; *OCEANS; OCEANOGRAPHY; *POLLUTION;

POSTSECONDARY EDUCATION; *SEWAGE; *WASTES; *WASTE DISPOSAL; WASTEWATER

DESCRIPTIVE NOTE: 464P. PRICE: $33.45

ABSTRACT: THIS IS A COMPREHENSIVE AND SYSTEMATIC PRESENTATION OF THE OCEANOGRAPHIC, CHEMICAL AND BIOLOGICAL PROCESSES AND ENVIRONMENTAL EFFECTS OF OCEAN DISPOSAL OF INDUSTRIAL WASTES AND SEWAGE. INCLUDED ARE FIELD AND LABORATORY STUDIES, METHODS OF MATHEMATICAL MODELING, AND STRATEGIES FOR ACHIEVING OPTIMAL DISPOSAL MANAGEMENT.

AVAILABILITY: WILEY-INTERSCIENCE, 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW009083

PUBLICATION DATE: 82

TITLE: WASTEWATER OPERATOR'S MATHEMATICS.

PERSONAL AUTHOR: KARN, ROGER; AND OTHERS

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *MATHEMATICAL APPLICATIONS; *MATHEMATICS; *OPERATOR TRAINING; *POSTSECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $9.50 MEMBERS; $12.50 NON-MEMBERS.

ABSTRACT: THIS MANUAL IS DESIGNED TO HELP WASTEWATER TREATMENT OPERATORS REVIEW AND REFRESH THEIR SKILLS IN SOLVING EVERYDAY MATHEMATICS PROBLEMS. THE 134-PAGE MANUAL HAS FIVE CHAPTERS: BASIC AND RELATED MATH; DETENTION TIME; PERCENT REMOVAL OR EFFICIENCY; LOADING; AND POPULATION EQUIVALENT. AN APPENDIX CONTAINS 53 PRACTICE PROBLEMS AND SOLUTIONS, AS WELL AS COMMON FORMULAS AND CONVERSION FACTORS.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION (NETA), 158 S. NAPOLEON STREET, P.O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW009084

PUBLICATION DATE: 82

TITLE: WATER AND WASTE TREATMENT DATA BOOK.

DESCRIPTOR: *DATA; *INDUSTRIAL WASTES; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *WASTE TREATMENT; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 144P. PRICE: $3.95

ABSTRACT: ITEMS COVERED RANGE FROM "WATER EQUIVALENTS" AND "TANK CAPACITIES" TO "SLUDGE CARRYING CAPACITY FOR CONVEYORS" AND "HEAVY METALS REMOVAL." IN TOTAL THERE ARE 91 SECTIONS OF INFORMATION WITH CHARTS, TABLES, DIAGRAMS, GRAPHS AND NOMOGRAPHS.

AVAILABILITY: THE PERMUTIT COMPANY, INC., E49 MIDLAND AVENUE, PARAMUS, NJ 07652

IRIS ACCESSION NUMBER: EW009085

PUBLICATION DATE: 82

TITLE: WATER FOR HUMAN CONSUMPTION: MAN AND HIS ENVIRONMENT (VOLUME I).

DESCRIPTOR: *ADMINISTRATION; *CONFERENCE PROCEEDINGS; *DRINKING WATER; *EDUCATION; *ENGINEERING; *ECONOMICS; *ENVIRONMENT; *MANAGEMENT; *WATER RESOURCES; *WATER RIGHTS; *WATER SUPPLY

DESCRIPTIVE NOTE: 606P.

ABSTRACT: THIS PUBLICATION CONTAINS SELECTED PAPERS AND ABSTRACTS FROM THE FOURTH WORLD CONGRESS OF THE INTERNATIONAL WATER RESOURCES ASSOCIATION. INCLUDED ARE 26 REPORTS AND 99 ABSTRACTS.

AVAILABILITY: UNIPUB, 1180 AVENUE OF THE AMERICAS, NEW YORK, NY 10036

IRIS ACCESSION NUMBER: EW009086

PUBLICATION DATE: MAY 83

TITLE: WATER FOR HUMAN CONSUMPTION: MAN AND HIS ENVIRONMENT (VOLUME II).

DESCRIPTOR: *CONFERENCE PROCEEDINGS; DRINKING WATER; *ECONOMICS; *EDUCATION; *ENGINEERING; *ENVIRONMENT; *LEGISLATION; *MANAGEMENT; *REGULATIONS; *WATER RESOURCES; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 180P.

ABSTRACT: THIS PUBLICATION IS THE COMPANION TEXT TO WATER FOR HUMAN CONSUMPTION/VOLUME I AND PROVIDES STATE-OF-THE-ART ADDRESSES AND DOCUMENTS FROM THE DISCUSSIONS ARISING FROM EACH OF FOUR TOPICS DISCUSSED AT THE FOURTH WORLD CONGRESS OF THE INTERNATIONAL WATER RESOURCES ASSOCIATION. TOPICS INCLUDED (1) WATER AND SYSTEMS ENGINEERING; (2) EDUCATIONAL, ECONOMIC, AND SOCIAL ASPECTS; (3) WATER RESOURCES AND THE ENVIRONMENT; AND (4) WATER LAW AND ADMINISTRATION. ABSTRACTS OF PAPERS AND OTHER REPORTS ARE INCLUDED.

AVAILABILITY: UNIPUB, 1180 AVENUE OF THE AMERICAS, NEW YORK, NY 10036

IRIS ACCESSION NUMBER: EW009087

PUBLICATION DATE: 80

TITLE: WATER MANAGEMENT IN INDUSTRIALIZED RIVER BASINS.

DESCRIPTOR: *INDUSTRIES; *MANAGEMENT; *PLANNING; *POLICIES; *RIVER BASINS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 163P. PRICE: $10.00

ABSTRACT: THIS PUBLICATION PROVIDES A DETAILED ANALYSIS OF WATER MANAGEMENT INSTRUMENTS AND POLICIES USED IN HIGHLY INDUSTRIALIZED RIVER BASINS.

AVAILABILITY: OECD PUBLICATIONS AND INFORMATION CENTER, 1750 PENNSYLVANIA AVENUE, N.W., SUITE 1207, WASHINGTON, DC 20006

IRIS ACCESSION NUMBER: EW009088

PUBLICATION DATE: 82

TITLE: WATER RESOURCES MANAGEMENT IN INDUSTRIAL AREAS.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *INDUSTRIES; *MANAGEMENT; *RESEARCH; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 463P.

ABSTRACT: THIS PUBLICATION CONTAINS SELECTED PAPERS FROM THE INTERNATIONAL SYMPOSIUM HELD BY THE INTERNATIONAL WATER RESOURCES ASSOCIATION (IWRA) IN SEPTEMBER, 1981, AT LISBON, PORTUGAL. 32 EDITED PAPERS ARE INCLUDED ON WATER QUALITY, WATER QUANTITY, MANAGEMENT, AND INDUSTRY.

AVAILABILITY: UNIPUB, 1130 AVENUE OF THE AMERICAS, NEW YORK, NY 10036

IRIS ACCESSION NUMBER: EW009089

PUBLICATION DATE: 73

TITLE: WATER SUPPLY AND WASTEWATER DISPOSAL--INTERNATIONAL ALMANAC.

PERSONAL AUTHOR: KEPINSKI, ALFRED; KEPINSKI, WALDEMAR A. S.

DESCRIPTOR: *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *WATER TREATMENT; *WATER SUPPLY; *WASTEWATER TREATMENT; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 316P.

ABSTRACT: THE LATEST (FIFTH) ADDITION TO THIS ANNUAL COMPENDIUM OF GENERAL KNOWLEDGE OF WATER AND WASTEWATER IS NOW AVAILABLE. THE PUBLISHERS HAVE ASSEMBLED A MAJOR REFERENCE SOURCE WITH THIS SERIES THAT DRAWS FROM INFORMATION AROUND THE WORLD.

AVAILABILITY: INTERNATIONAL INSTITUTE FOR WATER SUPPLY AND WASTEWATER DISPOSAL, GOOILAND 11, 2716 BP ZOETERMEER, NETHERLANDS

IRIS ACCESSION NUMBER: EW009090

PUBLICATION DATE: 82

TITLE: WATER TREATMENT: INDUSTRIAL, COMMERCIAL & MUNICIPAL.

PERSONAL AUTHOR: BRANDVOLD, D. C.

DESCRIPTOR: *INDUSTRIAL SUPPLY; *MUNICIPAL SUPPLY; *OPERATIONS (WATER); *PROBLEM SOLVING; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 119P. PRICE: $5.00.

ABSTRACT: PRESENTED ARE A WIDE VARIETY OF TECHNICAL SYSTEMS, PROBLEMS, AND REMEDIES RELATED TO PROPER WATER TREATMENT. DISCUSSED ARE PROBLEMS OF MUNICIPAL DRINKING WATER SUPPLY AS WELL AS INDUSTRIAL SUPPLY.

AVAILABILITY: BRANCHEMCO, INC., 8286 WESTERN WAY CIRCLE, JACKSONVILLE, FL 32216

IRIS ACCESSION NUMBER: EW009091

PUBLICATION DATE: DEC 82

TITLE: ACID MINE DRAINAGE. 1977-DECEMBER 1982 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ACID MINE DRAINAGE; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; ENVIRONMENTAL IMPACT; *HEAVY METALS; MINE DRAINAGE; *OPERATIONS (WASTEWATER); POLLUTION; *RESEARCH; *WATER POLLUTION; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 272P. PRICE CODE: PC N01/MF N01; PB83-858548

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE CONTROL AND TREATMENT OF ACID MINE DRAINAGE. TECHNIQUES DISCUSSED FOR TREATING WASTES WITH HEAVY METALS INCLUDE PRECIPITATION, CEMENTATION, ION EXCHANGE, CHARGED MEMBRANE, ULTRAFILTRATION, OZONATION, SOLVENT EXTRACTION, AND ELECTRODIALYSIS. THE ENVIRONMENTAL IMPACT OF ACID MINE DRAINAGE ON RIVERS, STREAMS, AND LAKES IS ALSO INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 184 CITATIONS, 15 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009092

PUBLICATION DATE: DEC 82

TITLE: ACTIVATED SLUDGE PROCESS USED IN COAL CONVERSION. 1976-DECEMBER 1982 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ACTIVATED SLUDGE; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *COAL CONVERSION; COAL; *INDUSTRIAL WASTES;

POLLUTION; *RESEARCH; *WASTE TREATMENT; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 107P. PRICE CODE: PC N01/MF N01; PB83-855783

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TREATMENT OF COAL CONVERSION WATERS BY THE ACTIVATED SLUDGE PROCESS TO PREVENT ENVIRONMENTAL POLLUTION AND, IN SOME CASES, TO PERMIT THE REUSE OF THESE WASTE WATERS. CONSIDERATION IS GIVEN TO EXPERIMENTAL, TECHNICAL, AND OPERATIONAL ASPECTS OF THE PROCESS AS WELL AS TO PROCESS APPARATUS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 81 CITATIONS, 17 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009093

PUBLICATION DATE: 82

TITLE: ADEQUACY OF DISINFECTION FOR CONTROL OF NEWLY RECOGNIZED WATERBORNE PATHOGENS.

PERSONAL AUTHOR: HOFF, JOHN C.; GERLDREICH, EDWIN E.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BACTERIA; BIBLIOGRAPHIES; *DISINFECTION; *PATHOGENS; *PUBLIC HEALTH; *RESEARCH; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 16P. PRICE CODE: A02/MF A01; PB83-152181

ABSTRACT: AGENTS RECENTLY RECOGNIZED AS CAUSES OR POTENTIAL CAUSES OF WATERBORNE OUTBREAKS INCLUDE PATHOGENIC BACTERIA (CAMPYLOBACTER JEJUNI, YERSINIA ENTEROCOLITICIA), VIRUSES (ROTAVIRUS, NORWALK VIRUS AND OTHER POORLY DEFINED VIRAL AGENTS) AND GIARDIA LAMBLIA, A PROTOZOAN AGENT. ALTHOUGH NOT A CAUSE OF WATERBORNE DISEASE IN THE CLASSICAL SENSE, CONCERN ALSO HAS BEEN EXPRESSED ABOUT THE REALTIONSHIP OF WATER SUPPLIES TO THE OCCURRENCE OF LEGIONELLOSIS CAUSED BY LEGIONELLA PNEUMOPHILA. NEW DISINFECTION INFORMATION ON HEPATITIS A VIRUS (HAV), LONG ESTABLISHED AS A CAUSE OF WATERBORNE DISEASE, HAS RECENTLY BEEN DEVELOPED AND IS INCLUDED IN THIS REPORT. WITH THE POSSIBLE EXCEPTION OF GIARDIA LAMBLIA, WATERBORNE OUTBREAKS CAUSED BY THESE AGENTS SEEM TO OCCUR MAINLY AS A RESULT OF DEFICIENCIES IN TREATMENT, MASSIVE CONTAMINATION OF WATER SOURCES THAT RECEIVED INADEQUATE TREATMENT, OR CONTAMINATION AFTER TREATMENT. THERE IS LITTLE TO INDICATE THAT SUCH OUTBREAKS OCCUR IN WELL-OPERATED SYSTEMS WITH ADEQUATE OR CONVENTIONAL TREATMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009094

PUBLICATION DATE: DEC 82

TITLE: ANSWERS (AREAL NONPOINT SOURCE WATERSHED ENVIRONMENT RESPONSE SIMULATION) USER'S MANUAL.

PERSONAL AUTHOR: BEASLEY, DAVID B.; HUGGINS, LARRY F.

DESCRIPTOR: *ANSWERS; ENVIRONMENT; *EROSION; *HYDROLOGY; *MODELS; *NONPOINT SOURCE POLLUTION; *SIMULATIONS; *USER MANUALS; *WATERSHEDS

DESCRIPTIVE NOTE: 59P. PRICE CODE: PC A04/MF A01; PB83-115 436

ABSTRACT: THIS REPORT IS AN EXPANDED AND EDITED VERSION OF THE USERS MANUAL FOR THE ANSWERS (AREAL NONPOINT SOURCE WATERSHED ENVIRONMENT RESPONSE SIMULATION) MODEL, FIRST PUBLISHED IN SEPTEMBER, 1980. ANSWERS IS A DISTRIBUTED PARAMETER MODEL CAPABLE OF PREDICTING THE HYDROLOGIC AND EROSION RESPONSE OF PRIMARILY AGRICULTURAL WATERSHEDS. PARTICLE-SIZE DISTRIBUTIONS OF THE ERODED SEDIMENT ARE AVAILABLE. THE MANUAL PROVIDES INSIGHTS INTO MODEL CONCEPTS, INPUT REQUIREMENTS, OUTPUT INTERPRETATION, AND PLANNING APPLICATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009095

PUBLICATION DATE: 82

TITLE: ASSESSING MICROBIALLY-MEDIATED WATER QUALITY PROBLEMS IN DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: KNOCKE, WILLIAM R.; BOARDMAN, GREGORY D.

DESCRIPTOR: *CHEMICAL CHANGE; *DISINFECTION; *MICROORGANISMS; *MANAGEMENT; *RESEARCH; UTILITIES; *WATER DISTRIBUTION; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 215P. PRICE CODE: PC A01/MF A01; PB83-150045

ABSTRACT: THIS RESEARCH SOUGHT TO PROVIDE A REVIEW OF VARIOUS ASPECTS OF WATER QUALITY PROBLEMS THAT DEVELOP IN DISTRIBUTION SYSTEMS DURING WATER TRANSMISSION BY SURVEYING WATER UTILITY PROBLEMS AND RESPONSES TO CUSTOMER COMPLAINTS AND BY CONDUCTING FIELD MONITORING STUDIES OF WATER QUALITY CONCERNS AND LABORATORY STUDIES RELATED TO MONITORING AND CONTROL TECHNIQUES. SPECIFICALLY, THE STUDY ASSESSED THE POTENTIAL FOR MICROORGANISMS TO BIOLOGICALLY MEDIATE CHEMICAL CHANGES IN DISTRIBUTION SYSTEMS; INVESTIGATED THE USE OF CONCENTRATION TECHNIQUES FOR PROVIDING A REPRESENTATIVE MICROBIAL SAMPLE FROM DISTRIBUTION SYSTEMS; EXAMINED THE USE OF CHLORINE AND OTHER DISINFECTANTS FOR CONTROL OF MICROORGANISMS. THE STUDY CONCLUDES THAT MOST WATER UTILITIES LACK FUNDAMENTAL DATA NECESSARY TO ASSESS ACCURATELY WATER QUALITY PROBLEMS IN DISTRIBUTION SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009096

PUBLICATION DATE: JAN 83

TITLE: BIOCHEMICAL OXYGEN DEMAND. OCTOBER 1981-JANUARY 1983 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOLOGY; *BOD; *BIOCHEMICAL OXYGEN DEMAND; *INDUSTRIAL WASTES; *OXYGEN; *RESEARCH REPORTS; *SEWAGE; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 54P. PRICE CODE: PC N01/MF N01; PB83-302363

ABSTRACT: A BROAD RANGE OF CITATIONS DEALING WITH BIOCHEMICAL OXYGEN DEMAND (BOD) IN SEWAGE, INDUSTRIAL WASTE TREATMENT, AND RUNOFF, AND LIMNOLOGY ARE PRESENTED. THESE STUDIES INCLUDE TOPICS ON BOD REDUCTION, MODELS, AND BIOLOGICAL FACTORS. WHILE MANY OF THE REPORTS INCLUDE A DETAILED ANALYSIS OF BOD, SOME TREAT THE SUBJECT ONLY BRIEFLY. (THIS BIBLIOGRAPHY CONTAINS 47 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009097

PUBLICATION DATE: DEC 82

TITLE: BIOMASS CONVERSION: THERMOCHEMICAL PROCESSES. 1976-DECEMBER 1982 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: AGRICULTURAL WASTES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOMASS CONVERSION; *CHEMICAL REACTIONS; DEVELOPMENT; *ENERGY; FORESTRY WASTES; FUEL; ORGANIC WASTES; *RESEARCH; *TECHNOLOGY; *THERMOCHEMICAL PROCESSES

DESCRIPTIVE NOTE: 182P. PRICE CODE: PC N01/MF N01; PB83-856691

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING CHEMICAL REACTORS AND THERMOCHEMICAL PROCESSES IN BIOMASS CONVERSION. AGRICULTURAL WASTES, FORESTRY WASTES, AND OTHER ORGANIC WASTES FROM HUMAN ACTIVITY FOR FUEL AND ENERGY PRODUCTION ARE DISCUSSED. RESEARCH AND DEVELOPMENT, PROCESSING EQUIPMENT INNOVATIONS AND APPLIED TECHNOLOGY ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 159 CITATIONS, 40 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

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IRIS ACCESSION NUMBER: EW009098

PUBLICATION DATE: OCT 79

TITLE: COMPUTER MODEL FOR ANALYSIS AND DETERMINATION OF ENERGY SELF-SUFFICIENCY IN WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: CARSON, J. R.

DESCRIPTOR: *COMPUTER MODELS; *ENERGY; *ENERGY CONSERVATION; *EVALUATION; *FACILITIES; *MODELS; *SELF-SUFFICIENCY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 45P. PRICE CODE: PC A03/MF A01; DE82021991

ABSTRACT: A COMPUTER MODEL WAS DEVELOPED WHICH PERFORMS THE FOLLOWING CALCULATIONS: ESTIMATES THE GAS FLOW RATE AND ENERGY AVAILABLE FROM ANAEROBIC DIGESTION OF SEWAGE SLUDGE; CALCULATES ELECTRICAL AND THERMAL ENERGIES PRODUCIBLE BY BURNING THE AVAILABLE DIGESTER GAS IN A RECUPERATED GAS TURBINE ENGINE; ESTABLISHED THEORETICAL POTENTIAL FOR ENERGY SELF-SUFFICIENCY IN BOTH ELECTRICITY AND STEAM USAGE BY COMPARING THE ENERGY PRODUCABLE TO THE ENERGY DEMANDS OF PLANT; AND CALCULATES RATE OF RETURN AND STRAIGHTLINE PAYBACK FOR AN INVESTMENT IN A COGENERATION SYSTEM AT A GIVEN TREATMENT PLANT. THE COMPUTER MODEL WAS TESTED AT TWO WASTEWATER PLANTS IN CALIFORNIA. THE RESULTS SHOW THAT THE COMPUTER MODEL DESCRIBED PROVIDES A TOOL TO DETERMINE WHETHER ANY SELECTED WASTEWATER TREATMENT PLANT HAS THE THEORETICAL POTENTIAL TO BECOME ENERGY SELF-SUFFICIENT WITH ACCEPTABLE ACCURACY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009099

PUBLICATION DATE: MAY 81

TITLE: DESIGN CONSIDERATIONS FOR USE OF ON-SITE SAND FILTERS FOR WASTEWATER TREATMENT.

PERSONAL AUTHOR: DYMOND, RANDEL LEO

DESCRIPTOR: *DESIGN; *FILTRATION; *ONSITE TREATMENT; *PENNSYLVANIA; *PERFORMANCE EVALUATION; *SAND FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 204P. PRICE CODE: PC A10/MF A01; PB83-146738

ABSTRACT: SOIL CHARACTERISTICS IN MUCH OF PENNSYLVANIA ARE SUCH THAT A TYPICAL ON-SITE SEPTIC TANK/SOIL ABSORPTION SYSTEM WILL NOT FUNCTION PROPERLY. ALSO, USE OF SUCH TYPICAL SYSTEMS IS LIMITED IN MANY AREAS BY THE DEPTH TO THE GROUND WATER TABLE. THREE MAJOR SAND FILTER SYSTEM ALTERNATIVES WERE INVESTIGATED: THE RECIRCULATING SAND FILTER, THE BURIED SAND FILTER, AND THE INTERMITTENT SAND FILTER. THE BURIED SAND FILTER IS THE MOST OUTDATED AND LEAST EFFICIENT. THE RECIRCULATING SAND FILTER SYSTEM IS SUBJECT TO FREEZING, AND IT IS A COMPLICATED SYSTEM. THE MOST ECONOMICALLY AND

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TECHNOLOGICALLY FEASIBLE SYSTEM IS THE INTERMITTENT TYPE SAND FILTER. DISINFECTION IS USUALLY PRODUCED BY CHLORINATION (TABLET EROSION) OR ULTRAVIOLET IRRADIATION. THE MAJOR PROBLEM WITH ON-SITE SAND FILTER SYSTEMS IS THE REQUIRED MAINTENANCE, WITHOUT WHICH THE SYSTEM IS SURE TO FAIL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009100

PUBLICATION DATE: NOV 82

TITLE: DESIGN OF 301 (H) MONITORING PROGRAMS FOR MUNICIPAL WASTEWATER DISCHARGES TO MARINE WATERS.

DESCRIPTOR: *CLEAN WATER ACT; *DESIGN; *FEDERAL PROGRAMS; *MARINE WATERS; *MONITORING; *OCEANS; *PERFORMANCE EVALUATION; *REGULATIONS; *VARIANCES; *WASTEWATER DISCHARGES

DESCRIPTIVE NOTE: 144P. PRICE CODE: PC A07/MF A01; PB83-153809

ABSTRACT: UNDER SECTION 301(H) OF THE CLEAN WATER ACT OF 1977 AS AMENDED BY THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANT AMENDMENTS OF 1981, PUBLICLY OWNED TREATMENT WORKS (POTWS) MAY APPLY FOR A VARIANCE FROM THE SECONDARY TREATMENT REQUIREMENTS FOR DISCHARGE INTO MARINE WATERS. THE GUIDANCE PROVIDED IN THIS DOCUMENT HAS BEEN DEVELOPED TO HELP MEET THE GENERAL MONITORING REQUIREMENTS OF THE 301(H) PROGRAM. THIS DOCUMENT WAS PREPARED IN ORDER TO PROVIDE GUIDANCE FOR DESIGNING MONITORING PROGRAMS THAT WILL MEET REGULATORY REQUIREMENTS AND ALLOW CONTINUING ASSESSMENT OF THE IMPACT OF LESS-THAN-SECONDARY DISCHARGES ON THE RECEIVING WATER MARINE ENVIRONMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009101

PUBLICATION DATE: NOV 32

TITLE: DEVELOPMENT DOCUMENT FOR EXPANDED BEST PRACTICABLE CONTROL TECHNOLOGY, BEST CONVENTIONAL POLLUTANT CONTROL TECHNOLOGY, NEW SOURCE

PERSONAL AUTHOR: JETT, GEORGE M.

DESCRIPTOR: *CHEMICALS; *USEPA; *EFFLUENTS; *EFFLUENT LIMITATIONS; INDUSTRIES; *INDUSTRIAL WASTES; *PESTICIDES; *REGULATIONS; *STANDARDS; TECHNOLOGY; *WASTEWATERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 864P. PRICE CODE: PC A99/MF E04; PB83-153171

ABSTRACT: THE PURPOSE OF THIS REPORT IS TO PROVIDE A TECHNICAL DATA BASE FOR PROPOSAL OF EFFLUENT LIMITATIONS GUIDELINES BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY FOR THE PESTICIDE CHEMICALS INDUSTRY. EFFLUENT LIMITATIONS GUIDELINES FOR EXPANDED BEST PRACTICABLE CONTROL TECHNOLOGY CURRENTLY AVAILABLE (BPT), BEST CONVENTIONAL POLLUTANT CONTROL TECHNOLOGY (BCT), BEST AVAILABLE TECHNOLOGY ECONOMICALLY ACHIEVABLE (BAT), NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND PRETREATMENT STANDARDS FOR EXISTING SOURCES (PSES) AND NEW SOURCES (PSNS) WILL BE PROPOSED UNDER AUTHORITY OF SECTIONS 301, 304, 306, 307 (B) AND (C) OF THE AMENDED CLEAN WATER ACT FROM THE RESULTS OF THIS STUDY AND REVIEW BY EPA. GUIDELINES WILL ADDRESS 126 PRIORITY POLLUTANTS, AS WELL AS CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS AND THIRTEEN SUBCATEGORIES BASED ON WASTEWATER MATRICES. THE PRINCIPAL GROUPS OF POLLUTANTS DETECTED OR LIKELY TO BE PRESENT IN UNTREATED PESTICIDE PROCESS WASTEWATERS WERE: PHENOLS, VOLATILES (AROMATICS, HALOMETHANES, AND CHLORINATED ETHANES AND ETHYLENES), NITROSAMINES, DIENES, CYANIDE, COPPER, ZINC, AND PESTICIDES. TREATMENT UNITS RECOMMENDED FOR THE CONTROL OF THESE POLLUTANTS ARE ACTIVATED CARBON, RESIN ADSORPTION, HYDROLYSIS, STEAM STRIPPING, CHEMICAL OXIDATION, METALS SEPARATION, AND BIOLOGICAL OXIDATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009102

PUBLICATION DATE: JAN 83

TITLE: EFFECTS OF LAND USE AND URBANIZATION ON WATER RESOURCES AND WATER QUALITY. SEPTEMBER 1981-NOVEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *LAND USE; *PLANNING; *RESEARCH REPORTS; *URBAN AREAS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 72P. PRICE CODE: PC N01/MF N01; PB83-802520

ABSTRACT: GENERAL STUDIES ON THE EFFECTS OF LAND USE AND URBANIZATION ON WATER SUPPLY AND WATER QUALITY ARE PRESENTED. REPORTS ON SPECIFIC LOCALITIES ARE INCLUDED, IF THEY MAY BE APPLIED TO OTHER AREAS. THESE CITATIONS NOT ONLY INCLUDE LOCAL, STATE, AND NATIONAL GOVERNMENT POLICIES AND PLANNING AFFECTING LAND DEVELOPMENT, BUT ALSO BASIC RESEARCH ON THE RELATIONSHIP BETWEEN LAND USE AND WATER QUALITY MANAGEMENT. (THIS UPDATED BIBLIOGRAPHY CONTAINS 64 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009104

PUBLICATION DATE: AUG 82

TITLE: EVALUATION OF DESALINATION TECHNOLOGY FOR WASTEWATER

REUSE.
DESCRIPTOR: *DESALINATION; *EVALUATION; *SURVEYS; *TECHNOLOGY; *WASTEWATER REUSE; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 388P. PRICE CODE: PC A17/MF A01; PB83-139899

ABSTRACT: AS ENVIRONMENTAL CONSTRAINTS ON WASTEWATER DISCHARGE BECOME MORE RIGOROUS, DESALTING TECHNIQUES ARE BEGINNING TO FIND APPLICATION IN EFFLUENT TREATMENT PROCESSES. APPLICATIONS OF DESALINATION TECHNOLOGY TO THE TREATMENT OF MUNICIPAL, INDUSTRIAL AND AGRICULTURAL WASTEWATERS FOR REUSE ARE BEGINNING TO OCCUR. A SURVEY OF POTENTIAL AND EXISTING APPLICATIONS OF WASTEWATERS USING CURRENT DESALINATION TECHNOLOGY WAS CONDUCTED. THE PROCESSES CONSIDERED INCLUDE REVERSE OSMOSIS, ELECTRODIALYSIS, ION EXCHANGE, EVAPORATION, FREEZING, AND ULTRAFILTRATION. STANDARD TREATMENT SYSTEMS FOR DESALINATION OF WASTEWATER HAVE BEEN DEVELOPED TO ENABLE POTENTIAL USERS TO IDENTIFY PROCESS REQUIREMENTS AND COSTS FOR SPECIFIC WASTEWATERS. INDUSTRIAL, AGRICULTURAL AND MUNICIPAL WASTEWATER DESALINATION AND REUSE IS TECHNICALLY POSSIBLE. THE RELATIVELY HIGH CAPITAL, OPERATIONAL AND MAINTENANCE COSTS OF DESALINATION PROCESSES ARE THE PRIMARY DETERRENTS TO WIDESPREAD APPLICATION. HOWEVER, AS WASTEWATER DISCHARGE LIMITATIONS BECOME INCREASINGLY RESTRICTIVE, DESALINATION PROCESSES MAY BE ECONOMICALLY COMPETITIVE. INDUSTRY IS THE LARGEST POTENTIAL USER OF WASTEWATER DESALINATION AND REUSE SYSTEMS. THE POTENTIAL FOR POTABLE REUSE OF ANY WASTEWATER IS RELATIVELY LOW DUE TO POTENTIALLY ADVERSE HEALTH EFFECTS. NON-POTABLE REUSE OF MUNICIPAL WASTEWATERS HAS AVERAGE POTENTIAL IN AREAS WITH COSTLY OR LIMITED WATER SUPPLIES. INDUSTRY COULD USE BOTH MUNICIPAL AND AGRICULTURAL WASTEWATERS IN AREAS WITH EXPENSIVE OR LIMITED WATER SUPPLIES. THE REUSE OF WASTEWATER FOR AGRICULTURE WOULD GREATLY INCREASE THE COSTS OF FOOD CROPS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009105

PUBLICATION DATE: MAR 82

TITLE: FLOW REDUCTION: DEVELOPING A PUBLIC INFORMATION PROGRAM.

DESCRIPTOR: *FLOW REDUCTION ANALYSIS; *FLOW REDUCTION; *PLANNING; *PUBLIC INFORMATION; *WASTEWATER FLOW

DESCRIPTIVE NOTE: 120P. PRICE CODE: PC A06/MF A01; PB83-150508

ABSTRACT: THE REPORT PERTAINS TO WASTEWATER FLOW REDUCTION ANALYSIS AND PROGRAM PLANNING. WITH INCREASING NUMBERS OF COMMUNITIES BECOMING INTERESTED IN THE POTENTIAL BENEFITS OF FLOW REDUCTION, AND WITH THE INTRODUCTION OF FLOW REDUCTION ANALYSIS REQUIREMENTS INTO THE TREATMENT FACILITIES PLANNING (STEP 1) PHASE OF EPA'S CONSTRUCTION GRANTS PROGRAM, A NEED WAS FELT TO PROVIDE GUIDANCE ON FLOW REDUCTION ANALYSIS PROCEDURES AND ON DEVELOPING COMMUNITY PROGRAMS.
AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009106

PUBLICATION DATE: JAN 83

TITLE: FOOD PROCESSING WASTE TREATMENT. 1976-NOVEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AIR POLLUTION; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *FOOD PROCESSING; *INDUSTRIAL WASTES; *RESEARCH REPORTS; *SOLID WASTES; *WASTE TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 160P. PRICE CODE: PC N01/MF N01; PB83-801605

ABSTRACT: THE CITATIONS COVER AIR POLLUTION, SOLID WASTES, AND WATER POLLUTION CONTROL STUDIES FOR ALL TYPES OF FOOD PROCESSING, INCLUDING CANNING, RENDERING, MEAT PACKING, FISH, VEGETABLE, AND DAIRY PRODUCTS PROCESSING. (THIS UPDATED BIBLIOGRAPHY CONTAINS 152 CITATIONS, 20 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009107

PUBLICATION DATE: JAN 83

TITLE: GROUND WATER POLLUTION: GENERAL STUDIES. FEBRUARY 1980-DECEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *GROUNDWATER; *HYDROLOGY; LANDFILLS; *MODELS; *PLANNING; POLLUTION; *RESEARCH; *WATER RESOURCES; *WATER QUALITY; WATER WELLS

DESCRIPTIVE NOTE: 198P. PB83-802207; PRICE CODE: PC N01/MF N01

ABSTRACT: THESE FEDERALLY-FUNDED CITATIONS COVER TOPICS ON GROUND WATER QUALITY, MODELING, HYDROLOGY, POLLUTION FROM LANDFILLS AND INJECTION WELLS, AQUIFER POLLUTION, SOURCES, MINE ACID DRAINAGE, HYDROGEOLOGY, AND POLLUTION ABATEMENT PLANNING. STUDIES DEALING WITH IRRIGATION, FERTILIZATION, ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 190 CITATIONS, 88 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION .)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009108

PUBLICATION DATE: NOV 82

TITLE: MONITORING AND ANALYSIS OF HAZARDOUS ORGANICS TO MUNICIPAL WASTEWATER - A STUDY OF TWENTY-FIVE TREATMENT PLANTS.

PERSONAL AUTHOR: HANNAH, SIDNEY A.; ROSSMAN, LEWIS

DESCRIPTOR: *MONITORING; *ORGANIC COMPOUNDS; *PRIORITY POLLUTANTS; *POLLUTANTS; *PERFORMANCE EVALUATION; *SURVEYS; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36P. PRICE CODE: PC A03/MF A01; PB83-155713

ABSTRACT: THE MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY FUNDED AN EXTRAMURAL RESEARCH PROGRAM TO (1) DEVELOP SENSITIVE ANALYTICAL METHODS CAPABLE OF ANALYZING MUNICIPAL WASTEWATERS AND SLUDGES FOR 114 ORGANIC PRIORITY POLLUTANTS AND (2) SURVEY 25 PUBLICLY OWNED TREATMENT WORKS FOR THE TOXIC ORGANICS. DEVELOPMENT OF THE ANALYTICAL METHODS AND RESULTS OF THE SURVEY ARE DISCUSSED. PLANT SELECTION CRITERIA INCLUDED PLANT SIZE AND TYPE, GEOGRAPHICAL LOCATION AND INDUSTRIAL CONTRIBUTIONS TO THE MUNICIPAL WASTEWATER. RAW WASTEWATERS, PRIMARY EFFLUENTS, FINAL DISCHARGES AND SLUDGES WERE SAMPLED. THE MAJORITY OF THE PLANTS WERE FOUND TO HAVE BETWEEN 20 AND 50 PRIORITY ORGANICS IN THEIR RAW INFLUENTS AND 10 TO 30 PRIORITY ORGANICS IN THEIR FINAL DISCHARGES. SIGNIFICANCE OF THE FINDINGS AS RELATED TO PROPOSED WATER QUALITY CRITERIA FOR BOTH TOXIC ORGANICS AND METALS ARE ADDRESSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009109

PUBLICATION DATE: DEC 82

TITLE: NEEDS SURVEY (1982): COST ESTIMATES FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *CLEAN WATER ACT; *COMPLIANCE; *CONSTRUCTION; *EPA; *FACILITIES; *MUNICIPAL FACILITIES; *NEEDS SURVEY; *SURVEYS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 94P. PRICE CODE: PC A05/MF A01; PB83-148486

ABSTRACT: THE 1982 NEEDS SURVEY HAS BEEN COMPLETED IN COMPLIANCE WITH SECTIONS 205(A) AND 516(B) (1) OF THE CLEAN WATER ACT (CWO). IT PROVIDES THE BEST ESTIMATE AVAILABLE OF THE NATIONWIDE COSTS OF COMPLIANCE WITH THE GOALS OF THE 1981 CONSTRUCTION GRANT AMENDMENTS TO THE ACT. THIS SURVEY MODIFIES AND UPDATES THE COMPREHENSIVE COST ESTIMATES OF THE PREVIOUS FIVE SURVEYS FOR CONSTRUCTING ALL GRANT-ELIGIBLE MUNICIPAL TREATMENT WORKS NEEDED BY EXISTING AND FUTURE POPULATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009110

PUBLICATION DATE: JAN 83

TITLE: OCEAN WASTE DISPOSAL. 1977-JANUARY 1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; ENVIRONMENTAL IMPACT; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; *OCEANS; *RADIOACTIVE WASTES; WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 195P. PRICE CODE: PC N01/MF N01; PB83-859041

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE EFFECTS AND POTENTIAL IMPACTS OF WASTE MATERIALS DUMPING IN THE OCEANS. AMONG THE TYPES OF WASTES DISCUSSED ARE RADIOACTIVE WASTES, SOLID AND LIQUID INDUSTRIAL WASTES, AND SEWAGE TYPE WASTES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 138 CITATIONS, 28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009112

PUBLICATION DATE: JAN 82

TITLE: OPERATION AND MAINTENANCE CONSIDERATIONS FOR LAND TREATMENT SYSTEMS.

DESCRIPTOR: *LAND APPLICATION; *LAND TREATMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 352P. PRICE CODE: PC A16/MF A01; PB83-138560

ABSTRACT: THE OBJECTIVE OF THIS STUDY WAS TO FOCUS ON STRATEGIES AND PROBLEMS ASSOCIATED WITH THE OPERATION AND MAINTENANCE OF THE THREE MAJOR TYPES OF LAND APPLICATION SYSTEMS, I.E., SLOW RATE, RAPID INFILTRATION, AND OVERLAND FLOW. IN ADDITION, THE EFFECT OF VARIOUS METHODS AND LEVELS OF PRETREATMENT PRIOR TO LAND APPLICATION WERE STUDIED. 28 LAND APPLICATION SITES THROUGHOUT THE UNITED STATES WERE VISITED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009113

PUBLICATION DATE: JAN 83

TITLE: PERCOLATION TECHNIQUES FOR WATER QUALITY CONTROL AND WASTE TREATMENT. 1977-JANUARY 1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *GROUNDWATER; *PERCOLATION TECHNIQUES; *WATER RESOURCES; *WASTE TREATMENT; *WATER QUALITY; *WASTEWATER TREATMENT; *WATER QUALITY CONTROL

DESCRIPTIVE NOTE: 410P. PRICE CODE: PC N01/MF N01; PB83-359058

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING PERCOLATION TECHNIQUES FOR WATER QUALITY CONTROL AND WASTE TREATMENT. WASTE WATER TREATMENT, GROUND WATER RECHARGE, AND SOIL WATER MOVEMENT ARE DISCUSSED. EFFECTS OF WASTES ON GROUND WATER, CHARACTERISTICS OF PERCOLATION OF WASTES, IRRIGATION WATER, SOIL PERCOLATION TESTS, AND VIRUS TRANSPORT IN SOIL ARE INCLUDED. ALSO DISCUSSED ARE PERCOLATION MATHEMATICAL ANALYSIS AND MODELING. (THIS UPDATED BIBLIOGRAPHY CONTAINS 292 CITATIONS, 37 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009114

PUBLICATION DATE: AUG 82

TITLE: PROCEEDINGS OF STORMWATER AND WATER QUALITY MANAGEMENT MODELING USERS GROUP MEETING, 25-26 MARCH 1982.

PERSONAL AUTHOR: BARNWELL, THOMAS O.

DESCRIPTOR: *COMPUTER APPLICATIONS; *CONFERENCE PROCEEDINGS; *MANAGEMENT; *MODELS; *STORMWATER; *SURFACE RUNOFF; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 307P. PRICE CODE: PC A14/MF A01; PB83-145540

ABSTRACT: THIS REPORT INCLUDES 16 PAPERS ON TOPICS RELATED TO THE DEVELOPMENT AND APPLICATION OF COMPUTER-BASED MATHEMATICAL MODELS FOR WATER QUANTITY AND QUALITY MANAGEMENT PRESENTED AT THE SEMI-ANNUAL MEETING OF THE JOINT U.S.-CANADIAN STORMWATER AND WATER QUALITY MANAGEMENT MODELING USERS GROUP HELD 25-26 MARCH 1982 IN WASHINGTON DC. TOPICS COVERED INCLUDE A STUDY OF SELECTION, CALIBRATION AND VERIFICATION OF WATER QUALITY MODELS IN LOUISIANA AND AN ASSESSMENT OF MEASUREMENT UNCERTAINITY IN THE ESTIMATION OF STREAM REAERATION RATES FOR THESE MODELS. CALIBRATION OF HYDROLOGY AND SEDIMENT TRANSPORT ON SMALL AGRICULTURAL WATERSHEDS USING HYDROLOGICAL SIMULATION PROGRAM FORTRAN IS DESCRIBED. HYDROLOGIC MODELING FOR STUDIES OF POLLUTANT LOADS AND TRANSPORT IN LARGE RIVER BASINS AND THE USE OF CONTINUOUS SIMULATION MODEL CALIBRATION TECHNIQUES TO DEVELOP NONPOINT POLLUTION LOADING FACTORS WERE DESCRIBED. STATE-OF-THE-ART DATA ACQUISITION TECHNIQUES IN HYDROMETEOROLOGY ARE DISCUSSED. MATHEMATICAL ANALYSES OF TURBULENCE IN CENTER-FEED CIRCULAR SEDIMENTATION BASINS AND FOR DYNAMIC MODEL CALIBRATION ARE PRESENTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009115

PUBLICATION DATE: APR 81

TITLE: PROCEEDINGS OF THE CONFERENCE ON COMBINED MUNICIPAL/INDUSTRIAL WASTEWATER TREATMENT HELD AT THE UNIVERSITY OF TEXAS AT DALLAS ON MARCH 25-27, 1980.

PERSONAL AUTHOR: NETZER, AHARON

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DESIGN; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); *RESEARCH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 557P. PRICE CODE: PC A24/MF A01; PB83-142133

ABSTRACT: THIS CONFERENCE PRESENTED THE LATEST INFORMATION ON COMBINED MUNICIPAL/INDUSTRIAL WASTEWATER TREATMENT. THE CONFERENCE COVERED METHODS FOR TREATMENT OF COMBINED MUNICIPAL/INDUSTRIAL WASTEWATERS; INDUSTRIAL PRETREATMENT; CASE HISTORIES OF INDUSTRIAL PRETREATMENT EFFLUENTS AND COMBINED MUNICIPAL/INDUSTRIAL WASTEWATER TREATMENT; DATA ON PRESENCE AND FATE OF PRIORITY POLLUTANTS IN EXISTING MUNICIPAL/INDUSTRIAL WASTEWATER SYSTEMS; RESEARCH, DESIGN, AND OPERATION OF COMBINED MUNICIPAL/INDUSTRIAL WASTEWATER TREATMENT; SLUDGE HANDLING, UTILIZATION AND DISPOSAL; WATER REUSE AND RECYCLING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009116

PUBLICATION DATE: AUG 82

TITLE: QUALITY CRITERIA FOR WATER REUSE.

DESCRIPTOR: *CHEMICALS; *EVALUATION; *MICROORGANISMS; *PUBLIC HEALTH; *RECOMMENDATIONS; *TOXIC SUBSTANCES; *WATER QUALITY; *WATER REUSE; *WATER SUPPLY

DESCRIPTIVE NOTE: 153P. PRICE CODE: PC A08/MF A01; PB83-138636

ABSTRACT: THE REPORT CONCLUDES THAT THERE IS A CRITICAL NEED TO EVALUATE REUSED WATER CHEMICALLY, MICROBIOLOGICALLY, AND TOXICOLOGICALLY, AND THAT THE MOST PRACTICAL WAY TO MAKE JUDGEMENTS ABOUT THE POTENTIAL HEALTH HAZARDS OF REUSED WATER IS TO COMPARE IT WITH CONVENTIONAL SUPPLIES WITH RISKS, IF ANY, THAT ARE PRESUMED TO BE ACCEPTABLE. THE INITIAL COMPARISONS OF CONVENTIONAL WITH REUSED WATER SHOULD

BE DONE ON THE BASIS OF IDENTIFIABLE INDIVIDUAL COMPOUNDS AND MICROBIOLOGICAL ORGANISMS. THE RESULTS OF THESE TESTS WOULD DETERMINE THE NEED TO PROCEED WITH ADDITIONAL TESTING AND WOULD INDICATE WHETHER OR NOT THE REUSED WATER WAS 'AS SAFE AS' A GENERALLY ACCEPTED CONVENTIONAL SUPPLY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009117

PUBLICATION DATE: DEC 82

TITLE: RECLAIMED WATER. 1977-1982 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *RESEARCH REPORTS; *RECLAIMED WATER; *WATER REUSE; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 220P. PB83-857912; PRICE CODE: PC N01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING RECLAIMED WATER. WATER RECLAMATION FACILITY, RECLAIMED WATER REUSE AND STORAGE, AND RECLAMATION TECHNIQUES AND PROCESSES ARE DISCUSSED. INDUSTRIAL AND DOMESTIC WASTEWATER RECLAMATION AND REUSE SYSTEMS ARE ALSO DISCUSSED. PUBLIC ATTITUDES AND FEDERAL POLICY OF WATER RECLAMATION ARE PRESENTED. (CONTAINS 158 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009118

PUBLICATION DATE: NOV 81

TITLE: REMOVAL OF HEAVY METALS FROM WATER.

PERSONAL AUTHOR: SCHILLER, JOSEPH E.; KHALAFALLA, SANAA E.

DESCRIPTOR: *FILTRATION; *HEAVY METALS; *INVENTIONS; *METALS; *TECHNOLOGY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 7P. PAT-APPL-6-318 710; PRICE CODE: PC A02/MF A01

ABSTRACT: THIS INVENTION RELATES TO REMOVAL OF DISSOLVED METALS SUCH AS ZINC, CADMIUM, MANGANESE, IRON, COPPER, LEAD, CHROMIUM AND NICKEL FROM WATER. SPECIFIC AREAS OF APPLICATION INCLUDE TREATMENT OF WATERS FROM METALLURGICAL PROCESSES, MINE DRAINAGE AND METAL FINISHING FOR REMOVAL OF HEAVY METAL CONTAMINANTS, THUS ENABLING REUSE OR DISPOSAL OF THE WATER. IT HAS NOW BEEN FOUND, ACCORDING TO THE PROCESS OF THE INVENTION, THAT HEAVY METALS MAY BE REMOVED FROM WATER SOLUTION BY FILTRATION OF THE SOLUTION THROUGH A BED OF GRANULAR MAGNESIUM OXIDE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009119

PUBLICATION DATE: AUG 81

TITLE: REMOVAL OF SUSPENDED SOLIDS FROM WATER.

PERSONAL AUTHOR: SCHILLER, JOSEPH E.; KHALAFALLA, SANAA E.

DESCRIPTOR: *ASBESTOS; *CONTAMINATION; *INVENTIONS; *MAGNESIUM DIOXIDE; *TECHNOLOGY; *WATER TREATMENT; *WATER RESOURCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 7P. PAT-APPL-6-293 027; PRICE CODE: PC A02/MF A01

ABSTRACT: THIS INVENTION DISCLOSES AND CLAIMS THE USE OF MAGNESIUM OXIDE FOR REMOVAL OF ASBESTOS FIBERS FROM WATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009120

PUBLICATION DATE: SEP 82

TITLE: RESEARCH AND DEVELOPMENT FOR HEALTH AND ENVIRONMENTAL HAZARD ASSESSMENT-TASK ORDER 2. PROBLEM DEFINITION OF R AND D REQUIREMENTS FOR FIELD SANITATION AND WATER SUPPLY.

PERSONAL AUTHOR: SHOOTER, DOUGLAS; AND OTHERS

DESCRIPTOR: *DEVELOPMENT; *ENVIRONMENTAL HAZARD ASSESSMENT; *INTERVIEWS; *LITERATURE REVIEWS; *PUBLIC HEALTH; *RESEARCH NEEDS; *SANITATION; *WATER SUPPLY

DESCRIPTIVE NOTE: 196P. AD-A122 384/1; PRICE CODE: PC A09/MF A01

ABSTRACT: THIS REPORT IS A PROBLEM DEFINITION STUDY DESCRIBING THE POTENTIAL ADVERSE HUMAN HEALTH EFFECTS ASSOCIATED WITH ALL ASPECTS OF FIELD WATER SUPPLY AND FIELD SANITATION. IT OUTLINES PRESENT DOCTRINE AND KNOWLEDGE GAINED FROM FIELD INTERVIEWS AND FROM A REVIEW OF THE MILITARY AND PUBLISHED LITERATURE. POTENTIAL DATA GAPS AND RESEARCH NEEDS ARE IDENTIFIED. APPENDICES A AND B OF THIS REPORT ARE SEPARATE VOLUMES WHICH CONTAIN SUMMARY FIELD INTERVIEW REPORTS AND A BIBLIOGRAPHY, RESPECTIVELY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

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IRIS ACCESSION NUMBER: EW009121
PUBLICATION DATE: 83

TITLE: RESEARCH FOR GROUNDWATER QUALITY MANAGEMENT.

PERSONAL AUTHOR: HALL, CLINTON W.; AND OTHERS

DESCRIPTOR: *GROUNDWATER; *MANAGEMENT; *PLANNING; *RESEARCH; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 58P. PB83-152256; PRICE CODE: PC A04/MF A01

ABSTRACT: GROUND WATER IS AN EXCELLENT RESOURCE DUE TO ITS QUALITY AND AVAILABILITY. IN THE UNITED STATES IT IS AVAILABLE AT ALMOST ANY LOCATION IN QUANTITIES LARGE ENOUGH TO PROVIDE FOR DOMESTIC NEEDS AND OVER ONE-THIRD OF THE COUNTRY IS UNDERLAIN BY AQUIFERS CAPABLE OF YIELDING 100,000 GALLONS OR MORE DAILY ON A SUSTAINED BASIS. THIS EXPANSIVE NATURE OF GROUND WATER IS PARADOXICAL IN TERMS OF ITS ABILITY TO MEET WATER SUPPLY REQUIREMENTS OVER LONG PERIODS OF TIME. A GROUND-WATER RESEARCH STRATEGY IS PRESENTED WHICH DIVIDES RESEARCH CONSIDERATIONS INTO THREE AREAS BASED ON THE TYPES OF PROCESSES THAT WILL EFFECT POLLUTANT MOVEMENT IN THE SUBSURFACE: (1) HYDROLOGIC; (2) ABIOTIC; AND (3) BIOTIC PROCESSES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009122

PUBLICATION DATE: NOV 82

TITLE: REVISED SECTION 301 (H) TECHNICAL SUPPORT DOCUMENT.

DESCRIPTOR: *APPLICATION PROCEDURES; *DISCHARGE PERMITS; *REGULATIONS; *REVISED SECTION 301 (H); *TECHNICAL SUPPORT DOCUMENT

DESCRIPTIVE NOTE: 254P. PRICE CODE: PC A12/MF A01; PB83-153817

ABSTRACT: THIS DOCUMENT PROVIDES INFORMATION WHICH ESTABLISHES A TECHNICAL BASIS FOR UNDERSTANDING THE MAJOR DIFFERENCES BETWEEN THE ORIGINAL SECTION 301 (H) REGULATIONS PROMULGATES IN 1979 AND 1982 AMENDED REGULATIONS. THIS DOCUMENT ALSO PROVIDES A TECHNICAL EXPLANATION OF ASSESSMENTS REQUIRED FOR OBTAINING SECTION 301 (H) MODIFIED DISCHARGE PERMITS AND GUIDANCE FOR BOTH SMALL AND LARGE POTWS TO USE IN COMPLETING THE APPROPRIATE APPLICATION QUESTIONNAIRE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009123
PUBLICATION DATE: 82

TITLE: ROLE OF MUNICIPAL WASTEWATER TREATMENT IN CONTROL OF TOXICS.

PERSONAL AUTHOR: BISHOP, DOLLOFF F.

DESCRIPTOR: *ACTIVATED SLUDGE TREATMENT; *MUNICIPAL WASTES; *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *TOXIC CONTROL; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 39P. PRICE CODE: PC A03/MF A01; PB83-152447

ABSTRACT: THE U.S. EPA'S MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY IS ASSESSING THE TREATABILITY AND REMOVABILITY OF TOXIC SUBSTANCES FROM MUNICIPAL WASTEWATER BY VARIOUS TREATMENT PROCESSES. THE STUDIES FEATURE OCCURRENCE SURVEYS, TREATABILITY STUDIES TO ASSESS INDIVIDUAL TOXIC REMOVAL MECHANISMS AND PILOT-SCALE PLANT REMOVAL STUDIES USING WASTEWATER SPIKED WITH SELECTED PRIORITY POLLUTANTS (METALS AND ORGANICS). IN THE PLANT REMOVAL STUDIES, THE TREATMENT PLANT PERFORMANCE ON SPIKED WASTEWATER IS USUALLY COMPARED TO THE PERFORMANCE OF IDENTICAL TREATMENT ON THE UNSPIKED RAW WASTEWATER. FROM THE STUDIES TO DATE, CONVENTIONAL PRIMARY-ACTIVATED SLUDGE TREATMENT IS GENERALLY EFFECTIVE IN REMOVING TOXIC SUBSTANCES, TYPICALLY ACHIEVING BETTER THAN 90 PERCENT REMOVAL OF ORGANICS AND FROM 60-80 PERCENT REMOVAL OF THE METALS. HOWEVER, A NUMBER OF THE TOXIC SUBSTANCES WERE FOUND IN THE PLANT FINAL EFFLUENTS AT CONCENTRATIONS WHICH, BASED UPON EPA RECOMMENDED WATER QUALITY CRITERIA MAY PRESENT A POSSIBLE ENVIRONMENTAL HAZARD.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009124

PUBLICATION DATE: 83

TITLE: SELECTED WATER RESOURCES ABSTRACTS. ANNUAL CUMULATED INDEXES TO VOLUME 15, 1982. PART 1. AUTHOR, ORGANIZATION, ACCESSION NUMBER, PART 2. SUBJECT.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CONSERVATION; *INDEXES; *LEGISLATION; *MANAGEMENT; *PUBLICATIONS; *RESEARCH; *WATER RESOURCES; *WATER SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 612P. PRICE: PC$50.00; SWRA-82-N25-P-1-2

ABSTRACT: THE JOURNAL INCLUDES ABSTRACTS OF CURRENT AND EARLIER PERTINENT MONOGRAPHS, JOURNAL ARTICLES, REPORTS, AND OTHER PUBLICATION FORMATS. THESE DOCUMENTS COVER WATER RESOURCES AS TREATED IN THE LIFE, PHYSICAL, AND SOCIAL SCIENCES AND THE RELATED ENGINEERING AND LEGAL ASPECTS OF THE CHARACTERISTICS, SUPPLY CONDITION, CONSERVATION, CONTROL, USE, OR MANAGEMENT OF WATER RESOURCES. EACH

ABSTRACT INCLUDES A FULL BIBLIOGRAPHIC CITATION AND A SET OF DESCRIPTORS WHICH ARE LISTED IN THE WATER RESOURCES THESAURUS. THE ABSTRACT ENTRIES ARE CLASSIFIED INTO 10 FIELDS AND 60 GROUPS SIMILAR TO THE WATER RESOURCES RESEARCH CATEGORIES ESTABLISHED BY THE COMMITTEE ON WATER RESOURCES RESEARCH OF THE THEN FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009125

PUBLICATION DATE: JUN 82

TITLE: THE SEPTIC TANK AS A WASTEWATER TREATMENT AND DISPOSAL FACILITY.

PERSONAL AUTHOR: VENEMAN, PETER L. M.

DESCRIPTOR: *MANAGEMENT; *MASSACHUSETTS; *ONSITE WASTEWATER TREATMENT; *RESEARCH REPORTS; *SEPTIC TANKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34P. PRICE CODE: PC A04/MF A01; PB83-139873

ABSTRACT: OVER 27% OF THE HOUSING UNITS IN MASSACHUSETTS RELY ON THE SEPTIC TANK SYSTEM FOR ON-SITE WASTEWATER DISPOSAL. THE USE OF SOILS CAPABLE OF ABSORPTION AND RENOVATION OF SEPTIC TANK EFFLUENT IS ESSENTIAL FOR THE SUCCESSFUL DISPOSAL OF HOME-GENERATED SEWAGE AS THE SEPTIC TANK ITSELF ONLY PROVIDES RUDIMENTARY TREATMENT. THE CONTRIBUTIONS OF THE VARIOUS COMPONENTS OF THE SEPTIC SYSTEM ARE DISCUSSED ON THE BASIS OF THE AVAILABLE LITERATURE. MOST SOILS IN MASSACHUSETTS ARE UNSUITABLE FOR WASTEWATER DISPOSAL BECAUSE OF DENSE, RELATIVELY IMPERVIOUS LAYERS IN THE SUBSOIL, SEASONALLY HIGH GROUNDWATER TABLES, OR OVERALL COMPACTNESS OF THE SOIL MATERIAL. MASSACHUSETTS SOILS ARE RATED FOR THEIR SUITABILITY FOR ON-SITE SEWAGE DISPOSAL IN TERMS OF SLIGHT, MODERATE OR SEVERE LIMITATIONS. MANAGEMENT PRACTICES TO PREVENT OR OVERCOME THESE LIMITATIONS ARE PRESENTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009126

PUBLICATION DATE: JAN 83

TITLE: SEWAGE EFFECTS IN MARINE AND ESTUARINE ENVIRONMENTS. 1977-NOVEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ECOLOGY; *EFFLUENTS; *ENVIRONMENTAL EFFECTS; *ESTUARINE ENVIRONMENTS; MARINE BIOLOGY; *MARINE ENVIRONMENTS; *SEWAGE; *SLUDGE

DESCRIPTIVE NOTE: 179P. PRICE CODE: PC N01/MF N01

ABSTRACT: TOPICS COVER THE EFFECTS THAT SEWAGE EFFLUENTS AND SLUDGE HAVE UPON MARINE AND ESTUARINE ENVIRONMENTS, ESPECIALLY THEIR ECOLOGY. THE EFFECTS ON MARINE PLANTS AND ANIMALS, PROBLEMS DUE TO OCEAN DUMPING, DISPERSION STUDIES, WATER CHEMISTRY, AND OTHER RELATED TOPICS ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 171 CITATIONS, 28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009127

PUBLICATION DATE: DEC 82

TITLE: SHARING THE COST OF MAKING FEDERAL WATER PROJECT FEASIBILITY STUDIES--A FINANCING ALTERNATIVE.

DESCRIPTOR: *COST SHARING; *FEASIBILITY STUDIES; *FEDERAL PROGRAMS; *FEDERAL ROLE; *PROPOSALS; *REPORTS; *WATER RESOURCES; *WATER RESOURCE PROJECTS

DESCRIPTIVE NOTE: 44P. PRICE CODE: PC A03/MF A01; PB83-148577

ABSTRACT: MOST FEASIBILITY STUDIES PERFORMED BY THREE MAJOR FEDERAL AGENCIES TO RESOLVE WATER RESOURCE PROBLEMS ARE DISCONTINUED BEFORE COMPLETION OR CONCLUDE THAT NO FEASIBLE PROJECT CAN BE IDENTIFIED PRIMARILY BECAUSE COSTS EXCEED BENEFITS OR THE LOCAL COMMUNITY DOES NOT SUPPORT THE PROPOSED SOLUTION. SHARING OF FEASIBILITY STUDY COSTS WITH NON-FEDERAL SPONSORS HAS MERIT. THE REPORT SHOULD HELP THE CONGRESS IN CONSIDERING CURRENT COST SHARING PROPOSALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009128

PUBLICATION DATE: JAN 83

TITLE: SUPERTANKERS AND SUPERPORTS. 1964-DECEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENVIRONMENTAL IMPACT; RESEARCH REPORTS; *SUPERPORTS; *SUPERTANKERS

DESCRIPTIVE NOTE: 236P. PRICE CODE: PC N01/MF N01; PB83-802538

ABSTRACT: CONSTRUCTION AND OPERATION OF SUPERTANKERS AND REQUIREMENTS FOR PORT FACILITIES ARE REVIEWED IN THESE GOVERNMENT-SPONSORED RESEARCH REPORTS. THE ENVIRONMENTAL ASPECTS ARE INVESTIGATED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 228 CITATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009129
PUBLICATION DATE: JAN 83

TITLE: SUPERTANKERS AND SUPERPORTS. 1970-DECEMBER 1982 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CONSTRUCTION; *ENVIRONMENTAL ASPECTS; LITERATURE REVIEWS; *OPERATIONS; *PORT FACILITIES; *SUPERPORTS; *SUPERTANKERS

DESCRIPTIVE NOTE: 139P. PRICE CODE: PC N01/MF N01; PB83-302637

ABSTRACT: CONSTRUCTION AND OPERATION OF SUPERTANKERS AND REQUIREMENTS FOR PORT FACILITIES ARE REVIEWED IN THESE REPORTS GATHERED FROM WORLDWIDE LITERATURE SURVEYS. ENVIRONMENTAL ASPECTS, OFFSHORE MOORING SITES, AND HARBOR PREPARATION ARE AMONG THE FEATURES INVESTIGATED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 132 CITATIONS, 4 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009130

PUBLICATION DATE: JAN 83

TITLE: THERMAL POLLUTION. CONTROL TECHNIQUES AND GENERAL STUDIES. MARCH 1980-DECEMBER 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *EFFLUENTS; HEATED EFFLUENTS; *INDUSTRIAL PLANTS; *POWER PLANTS; REMOTE SENSING; *RESEARCH REPORTS; *THERMAL POLLUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 93P. PRICE CODE: PC N01/MF N01; PB83-802348

ABSTRACT: REPORTS CONCERNED WITH CONTROL TECHNIQUES FOR HEATED EFFLUENTS FROM POWER AND INDUSTRIAL PLANTS ARE CITED. ALSO INCLUDED ARE STUDIES ON GENERAL THERMAL POLLUTION PROBLEMS AND THEIR ABATEMENT. MANY REPORTS ON THE REMOTE SENSING OF THERMAL EFFLUENTS ARE ALSO CITED. HOWEVER, THE CONTROL OF THERMAL POLLUTION BY USING THE WASTE HEAT FOR CONSTRUCTIVE PURPOSES IS NOT COVERED IN THIS BIBLIOGRAPHY. (THIS UPDATED BIBLIOGRAPHY CONTAINS 85 CITATIONS, 33 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009131

PUBLICATION DATE: DEC 82

TITLE: WASTE DISPOSAL IN LOGGING, SAWMILLS, AND PAPER INDUSTRY. 1979-DECEMBER 1982 (CITATIONS FROM THE INSTITUTE OF PAPER CHEMISTRY DATA).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *LOGGING; *LUMBER INDUSTRY; *PAPER INDUSTRY; RECYCLING; REGULATIONS; *WASTE DISPOSAL; *WASTE TREATMENT; *WASTE USE

DESCRIPTIVE NOTE: 369P. PRICE CODE: PC N01/MF N01; PB83-855775

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING WASTE DISPOSAL AND UTILIZATION FOR THE LOGGING, SAWMILL, AND PAPER INDUSTRIES. UTILIZATION INVOLVES RECYCLING OR CONVERSION TO FERTILIZERS, FEEDSTUFFS, OR SPECIAL FUELS. WASTE PRODUCTS THAT ARE ADDRESSED INCLUDE BARK, WOOD RESIDUES, SPENT LIQUORS, AND WASTE PAPER AND PAPERBOARD. PROCEDURES INCLUDE TREATMENT, PURIFICATION, SEPARATION, RECLAMATION, AND DISPOSAL. LANDFILL OPERATIONS FOR DISPOSAL RECEIVES SOME EMPHASIS, ESPECIALLY AS AFFECTED BY FEDERAL REGULATIONS AND GUIDELINES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 317 CITATIONS, 60 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009132

PUBLICATION DATE: JAN 83

TITLE: WASTEWATER TREATMENT: CHEMICAL INDUSTRY. 1970-JANUARY 1983 (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CHEMICALS; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 180P. PB83-858621; PRICE CODE: PC N01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING WASTEWATER TREATMENT IN THE CHEMICAL INDUSTRY RELATIVE TO A WIDE VARIETY OF INDUSTRIAL POLLUTANTS. BIOLOGICAL TREATMENTS, INCLUDING CARBON ADDITIVES, ARE DESCRIBED RELATIVE TO EFFECTIVENESS. THE REMOVAL OF MERCURY AND ITS COMPOUNDS ARE INCLUDED, AS WELL AS ASSOCIATED PROBLEMS AND RECOMMENDATIONS FROM FERTILIZER AND PESTICIDE POLLUTION. (THIS UPDATED BIBLIOGRAPHY CONTAINS 204 CITATIONS, 14 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009133

TITLE: WASTEWATER TREATMENT: LAGOONS. 1977-1982 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;

*INDUSTRIAL WASTES; *LAGOONS; *OPERATIONS (WASTEWATER); *RESEARCH; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB83-857318; PRICE CODE: PC N01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TREATMENT OF WASTEWATER IN AERATED LAGOONS. THE DESIGN, OPERATION, EQUIPMENT AND PRETREATMENT PROCESSES ARE DISCUSSED. THE TREATMENT OF WASTEWATER FROM BREWERIES, TANNERIES, PAPER MILLS AND OTHER INDUSTRIAL OPERATIONS ARE CONSIDERED. (CONTAINS 158 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009134

TITLE: WATER QUALITY ASSESSMENT: A SCREENING PROCEDURE FOR TOXIC AND CONVENTIONAL POLLUTANTS, PART 1.

PERSONAL AUTHOR: MILLS, W. B.; AND OTHERS

DESCRIPTOR: *POLLUTANTS; *RIVERS; *STREAMS; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: PB83-153122; PRICE CODE: PC A25/MF A01

ABSTRACT: APPLYING THE MANUAL'S SIMPLE TECHNIQUES, THE USER IS NOW CAPABLE OF ASSESSING THE LOADING AND FATE OF CONVENTIONAL POLLUTANTS (TEMPERATURE, BIOCHEMICAL OXYGEN DEMAND-DISSOLVED OXYGEN, NUTRIENTS, AND SEDIMENTS) AND TOXIC POLLUTANTS (FROM THE U.S. EPA LIST OF PRIORITY POLLUTANTS) IN STREAMS, IMPOUNDMENTS AND ESTUARIES. PART 1 CONTAINS THE INTRODUCTION AND CHAPTERS ON THE AQUATIC FATE OF TOXIC ORGANIC SUBSTANCES, WASTE LOAD CALCULATIONS, AND THE ASSESSMENT OF WATER QUALITY PARAMETERS IN RIVERS AND STREAMS. PART 2 CONTINUES WITH CHAPTERS ON THE ASSESSMENT OF IMPOUNDMENTS AND ESTUARIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009135

PUBLICATION DATE: SEP 82

TITLE: WATER QUALITY ASSESSMENT: A SCREENING PROCEDURE FOR TOXIC AND CONVENTIONAL POLLUTANTS, PART 2.

PERSONAL AUTHOR: MILLS, W. B.; AND OTHERS

DESCRIPTOR: *CHEMICALS; *ESTUARIES; *IMPOUNDMENTS; *POLLUTION; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 671P. PB83-153130; PRICE CODE: PC A99/MF A01

ABSTRACT: APPLYING THE MANUAL'S SIMPLE TECHNIQUES, THE USER IS NOW CAPABLE OF ASSESSING THE LOADING AND FATE OF CONVENTIONAL POLLUTANTS (TEMPERATURE, BIOCHEMICAL OXYGEN DEMAND-DISSOLVED OXYGEN, NUTRIENTS, AND SEDIMENTS) AND TOXIC POLLUTANTS (FROM THE U.S. EPA LIST OF PRIORITY POLLUTANTS) IN STREAMS, IMPOUNDMENTS, AND ESTUARIES. PART 1 CONTAINS THE INTRODUCTION AND CHAPTERS ON THE AQUATIC FATE OF TOXIC ORGANIC SUBSTANCES, WASTE LOAD CALCULATIONS, AND THE ASSESSMENT OF WATER QUALITY PARAMETERS IN RIVERS AND STREAMS. PART 2 CONTINUES WITH CHAPTERS ON THE ASSESSMENT OF IMPOUNDMENTS AND ESTUARIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009136

PUBLICATION DATE: SEP 82

TITLE: WATER QUALITY ASSESSMENT: A SCREENING PROCEDURE FOR TOXIC AND CONVENTIONAL POLLUTANTS, PART 3.

PERSONAL AUTHOR: MILLS, W. B.; AND OTHERS

DESCRIPTOR: *CHEMICALS; *CONTAMINATION; *ESTUARIES; *IMPOUNDMENTS; *POLLUTION; *STREAMS; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 508P. PB83-100016; PRICE CODE: PC A22/MF A01

ABSTRACT: NEW TECHNICAL DEVELOPMENTS IN THE FIELD OF WATER QUALITY ASSESSMENT AND A REORDERING OF WATER QUALITY PRIORITIES PROMPTED A REVISION OF WATER QUALITY ASSESSMENT: A SCREENING METHODOLOGY FOR NONDESIGNATED 208 AREAS (EPA-600/9-77-023). THE UTILITY OF THE REVISED MANUAL IS ENHANCED BY THE INCLUSION OF INFORMATION ON THE ACCUMULATION, TRANSPORT, AND FATE OF TOXIC CHEMICALS IN THE ENVIRONMENT. THE USER IS NOW CAPABLE OF ASSESSING THE LOADING AND FATE OF CONVENTIONAL POLLUTANTS (TEMPERATURE, BIOCHEMICAL OXYGEN DEMAND-DISSOLVED OXYGEN, NUTRIENTS, AND SEDIMENTS) AND TOXIC POLLUTANTS IN STREAMS, IMPOUNDMENTS AND ESTUARIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009137

PUBLICATION DATE: FEB 82

TITLE: WEAK-ELECTROLYTE ION EXCHANGE IN ADVANCED-TECHNOLOGY WATER-REUSE SYSTEMS.

PERSONAL AUTHOR: KLEIN, GERHARD; AND OTHERS

DESCRIPTOR: *ADVANCED TECHNOLOGY; *ION EXCHANGE; *RESEARCH REPORTS; *TECHNOLOGY; *WATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 97P. PRICE CODE: PC A05/MF A01; PB83-139972

ABSTRACT: ION-EXCHANGE TREATMENT CAN BE USED TO PURIFY

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WASTEWATER IN VARIOUS WAYS, INCLUDING SELECTIVE REMOVAL OF INDIVIDUAL UNWANTED IONIC SPECIES. WEAK-ACID AND WEAK-BASE ION EXCHANGERS, RELATIVELY NEW ON A COMMERCIAL SCALE, FURNISH AND EXCEPTIONAL RANGE OF PERFORMANCE CAPABILITIES WITH THE PROSPECT OF UNUSUALLY EFFICIENT AND INEXPENSIVE REGENERATION. A NEW TECHNIQUE, SEGMENTED-BED OPERATION, HAS BEEN DEVELOPED TO MINIMIZE THE COST AND USE OF REGENERANT CHEMICALS, AND THE DISPOSAL OF REGENERATION WASTES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009152

PUBLICATION DATE: 82

TITLE: HAZARDOUS WASTE REGULATION HANDBOOK - A PRACTICAL GUIDE TO RCRA AND SUPERFUND.

PERSONAL AUTHOR: WEINBERG, DAVID B.; AND OTHERS

DESCRIPTOR: *COMPLIANCE; *ENFORCEMENT; *HAZARDOUS WASTES; *LEGISLATION; PLANNING; RCRA; REFERENCES; *REGULATIONS; *SUPERFUND; *WASTE DISPOSAL; *WASTE GENERATORS; *WASTE STORAGE; *WASTE TRANSPORTERS

DESCRIPTIVE NOTE: 379P.

ABSTRACT: THIS HANDBOOK PROVIDES A USEFUL REFERENCE RESOURCE FOR PERSONS WITH HAZARDOUS WASTE RESPONSIBILITIES. INDLUDED IN THE 14 CHAPTERS ARE SECTIONS ON (1) RCRA AND THE SUPERFUND, (2) FEDERAL/STATE RESPONSIBILITIES, (3) GENERATORS OBLIGATIONS, (4) TRANSPORTERS OBLIGATIONS, (5) STORAGE AND DISPOSAL FACILITIES, AND (6) ENFORCEMENT. APPENDICES PROVIDE ADDITIONAL INFORMATION REGARDING DEFINITIONS, WASTES, REGULATIONS, LEGISLATION, AND REPORTING REQUIREMENTS.

AVAILABILITY: EXECUTIVE ENTERPRISES PUBLICATIONS CO., INC., 33 WEST 60TH STREET, NEW YORK, NY 10023

IRIS ACCESSION NUMBER: EW009153

PUBLICATION DATE: APR 83

TITLE: PROGRAMMED PERFORMANCE - THE MICROCOMPUTER AS A DIAGNOSTIC TOOL.

PERSONAL AUTHOR: JOHNSON, TOM

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *COMPUTER SOFTWARE; *DIAGNOSTIC PROCEDURES; *MICROCOMPUTERS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

ABSTRACT: THIS ARTICLE DESCRIBES THE USE OF THE MICROCOMPUTER AS A DIAGNOSTIC TOOL FOR WASTEWATER TREATMENT PLANTS. PROGRAMS DEVELOPED FOR EPA REGION X ARE LISTED AND THE CHARACTERISTICS OF THE PROGRAMS ARE DISCUSSED.

AVAILABILITY: DEEDS & DATA, WATER POLLUTION CONTROL

FEDERATION, 2626 PENNSYLVANIIA AVE., N.W. , WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW009154

PUBLICATION DATE: MAY 83

TITLE: A DECADE OF PROGRESS - AMERICA'S QUEST FOR CLEAN WATER.

DESCRIPTOR: *CASE STUDIES; *CLEAN WATER ACT; *ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL ROLE; *LEGISLATION; *POLLUTION; *POLLUTION CONTROL; *TRENDS; *WATER QUALITY; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS PUBLICATION DOCUMENTS EFFORTS TO IMPROVE WATER QUALITY SINCE 1972. INCLUDED ARE DATA ON EXPENDITURES, FIVE BRIEF CASE STUDIES, AND LOCAL AND NATIONAL TRENDS RELATED TO WATER QUALITY. FINALLY, A LOOK IS TAKEN AT THE DECADE AHEAD.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW009156

PUBLICATION DATE: JAN 83

TITLE: PESTICIDE FORMULATIONS AND APPLICATION SYSTEMS: SECOND CONFERENCE.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DSITRIBUTION HAZARDS; *MANUFACTURING; *PACKAGING; *PESTICIDES; *SPRAY APPLICATION; *REGULATIONS; *SAFETY; *TOXICITY

DESCRIPTIVE NOTE: 111P.

ABSTRACT: THIS PUBLICATION PRESENTS THE RESULTS OF A CONFERENCE ON PESTICIDE FORMULATIONS, APPLICATION SYSTEMS, AND CONTAINER SELECTION AND USE.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW009157

TITLE: MANAGERIAL CONTROL.

DESCRIPTOR: *AUDIOVISUAL AIDS; *BUDGETS; *CONTROLS; *FILMS; *GOALS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *SUPERVISORS

DESCRIPTIVE NOTE: M 316; 20 MINUTE FILM.

ABSTRACT: THIS FILM STRESSES THREE STEPS TO MANAGERIAL CONTROL. THEY ALSO LEARN HOW PROPER CONTROLS WILL KEEP THEM ON BUDGET, ON SCHEDULE, AND ON TARGET AS MANAGERS. AS A

RESULT THEY WILL BE ABLE TO DELEGATE RESPONSIBILITY WITHOUT LOSING CONTROL AND WILL BE ABLE TO FUNCTION MORE EFFICIENTLY WITH INCREASED CONFIDENCE AND LESS ANXIETY.

AVAILABILITY: NATIONAL EDUCATIONAL MEDIA, INC., 21601 DEVONSHIRE STREET, CHATSWORTH, CA 91311

IRIS ACCESSION NUMBER: EW009158

TITLE: PROBLEM SOLVING - A PROCESS FOR MANAGERS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *FILMS; *GOALS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PROBLEM SOLVING; *SUPERVISION

DESCRIPTIVE NOTE: M315; 20 MINUTE FILM.

ABSTRACT: PROBLEM SOLVING IS AN ESSENTIAL SKILL REQUIRED OF ALL SUCCESSFUL SUPERVISORS AND MANAGERS. THIS FILM IS DESIGNED TO TEACH A SIX STEP PROCESS FOR PROBLEM SOLVING. THE FILM SHOWS HOW TO EVALUATE INFORMATION GATHERED TO SOLVE PROBLEMS IN THE MOST DIRECT WAY AND POINTS OUT THE HIGH COST OF CREATING "ORIGINAL SOLUTIONS" WHEN ACCEPTABLE SOLUTIONS ALREADY EXIST. MANAGERS ALSO LEARN TO TEST SOLUTIONS BEFORE PUTTING THEM INTO ACTION.

AVAILABILITY: NATIONAL EDUCATIONAL MEDIA, INC., 21601 DEVONSHIRE STREET, CHATSWORTH, CA 91311

IRIS ACCESSION NUMBER: EW009159

PUBLICATION DATE: MAY 83

TITLE: TREATMENT OF OIL-CONTAINING WASTEWATER.

PERSONAL AUTHOR: PUSHKAREV, V. V.; AND OTHERS

DESCRIPTOR: *FACILITIES; *INDUSTRIAL WASTES; *METALS; *METAL INDUSTRY; *OILS; *OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTE COLLECTION

DESCRIPTIVE NOTE: 245P.

ABSTRACT: THIS BOOK CONSIDERS A WIDE RANGE OF TOPICS ON VARIOUS FACETS OF THE MANAGEMENT OF OIL-CONTAINING WASTEWATER GENERATED AT INDUSTRIAL PLANTS WITH AN EMPHASIS ON FERROUS AND NONFERROUS METALLURGICAL PLANTS. INCLUDED ARE DESCRIPTIONS AND CHARACTERISTICS OF OIL-CONTAINING WASTEWATERS, METHODS OF TREATING WASTEWATERS, TREATMENT OF OILY WASTES, AND WASTEWATER TREATMENT PRACTICE AND TECHNOLOGICAL SCHEMES.

AVAILABILITY: ALLERTON PRESS, INC., 150 FIFTH AVENUE, NEW YORK, NY 10011

IRIS ACCESSION NUMBER: EW009160

PUBLICATION DATE: 82

TITLE: LABORATORY METHODS FOR WATER TREATMENT PLANT OPERATORS.

DESCRIPTOR: *ANALTYICAL TECHNIQUES; *CONTAMINANTS; *INSTRUCTIONAL MATERIALS; *MANUALS; *OPERATIONS (WATER); *OPERATOR TRAINING; *POSTSECONDARY EDUCATION; *POTABLE WATER; SAFE DRINKING WATER ACT; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 198P.

ABSTRACT: THIS MANUAL HAS BEEN DESIGNED TO MEET THE NEEDS OF TRAINING SMALL WATER TREATMENT PLANT OPERATORS WHO WILL BE INVOLVED IN THE ANALYSIS OF POTABLE WATER. THE MANUAL HAS BEEN DIVIDED INTO TWO SECTIONS. SECTION ONE DEALS WITH ANALYSIS OF CONTAMINANTS SPECIFIED IN THE SAFE DRINKING WATER ACT. SECTION TWO DEALS WITH THE ANALYSIS OF CONTAMINANTS SPECIFIED IN THE SECONDARY STANDARDS OF THE SAFE DRINKING WATER ACT AS WELL AS METHODS FOR EVALUATING TREATMENT REQUIREMENTS AND FINISHED WATER QUALITY, PH, ALKALINITY, HARDNESS, IRON, MANGANESE, AND THRESHOLD ODOR.

AVAILABILITY: ALLEGHENY COUNTY HEALTH DEPARTMENT, FRANK B. CLARK HEALTH CENTER, 40TH STREET & PENN AVENUE, PITTSBURGH, PA 15224

IRIS ACCESSION NUMBER: EW009161

PUBLICATION DATE: 82

TITLE: SCIENTIFIC REPORT OF THE INTERCALIBRATION EXERCISE. THE IOC/WMO/UNEP PILOT PROJECT ON MONITORING BACKGROUND LEVELS OF SELECTED POLLUTANTS IN OPEN OCEAN WATERS.

PERSONAL AUTHOR: ANDERSON, N.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACKGROUND LEVELS; *METALS; *MONITORING; *OCEANS; *ORGANOCHLORIDES; *POLLUTANTS; *RESEARCH REPORTS; *TRACE METALS; *WATER POLLUTION

DESCRIPTIVE NOTE: 91P.

ABSTRACT: THE LONG TERM OBJECTIVE OF THIS PROJECT IS TO OBTAIN INFORMATION ON THE LONG-TERM CHANGES AND TRENDS IN THE BACKGROUND LEVELS IN THE OCEAN OF THE MORE COMMON POLLUTANTS. INCLUDED IN THIS STUDY IS INFORMATION ON TRACE METALS, ORGANOCHLORIDES, AND INTERCALIBRATION OF SOLUTIONS.

AVAILABILITY: UNESCO, DIVISION OF UNIPUB, 345 PARK AVENUE, NEW YORK, NY 10010

IRIS ACCESSION NUMBER: EW009162
PUBLICATION DATE: FEB 83

TITLE: SAN FRANCISCO'S WASTEWATER TREATMENT PROGRAM NEEDS REEXAMINATION AND BETTER MANAGEMENT.

DESCRIPTOR: CALIFORNIA; CONSTRUCTION; COST EFFECTIVENESS; FACILITIES; MANAGEMENT; OPERATIONS (WASTEWATER); PROGRAM EVALUATION; PLANNING; RECOMMENDATIONS; WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 21P.

ABSTRACT: THIS IS A REPORT BY THE U.S. GENERAL ACCOUNTING OFFICE ON THE SAN FRANCISCO, CALIFORNIA WASTEWATER TREATMENT PROGRAM. THE REPORT STATES THAT THERE SHOULD BE A REEXAMINATION OF THE PROGRAM AND THAT BETTER MANAGEMENT IS NEEDED REGARDING DESIGN AND CHANGE ORDER REVIEWS.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW009164

PUBLICATION DATE: JAN 83

TITLE: WATER PROJECT CONSTRUCTION BACKLOG--A SERIOUS PROBLEM WITH NO EASY SOLUTION.

DESCRIPTOR: *CONSTRUCTION; *COSTS; ECONOMICS; *FEDERAL PROJECTS; *FEDERAL ROLE; MAINTENANCE; OPERATIONS (WATER); *PROJECT REPORTS; *RECOMMENDATIONS; *WATER PROJECTS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 69P.

ABSTRACT: THE ARMY CORPS OF ENGINEERS AND THE BUREAU OF RECLAMATION STARTED FISCAL YEAR 1982 WITH 934 AUTHORIZED WATER PROJECTS NEEDING ABOUT $60 BILLION TO COMPLETE CONSTRUCTION. FOR FISCAL YEAR 1982, THE CONGRESS PROVIDED CONSTRUCTION FUNDS FOR 289 OF THESE PROJECTS, BUT DID NOT FUND THE REMAINING 645 PROJECTS NEEDING ABOUT $24.5 BILLION TO COMPLETE. ABOUT $21.9 BILLION HAD ALREADY BEEN SPENT ON THE 289 FUNDED PROJECTS. ANOTHER $35.5 BILLION--INCLUDING AN ESTIMATE FOR FUTURE INFLATION OF CORPS PROJECTS--IS NEEDED TO COMPLETE THEM. THE BACKLOG HAS GROWN IN ACTUAL DOLLARS BECAUSE FUNDING HAS NOT BEEN SUFFICIENT TO OFFSET INFLATION AND OTHER COST INCREASES. NO EASY ANSWERS EXIST FOR ELIMINATING THE CONSTRUCTION BACKLOG. HOWEVER, THIS REPORT DISCUSSES SEVERAL ALTERNATIVES WHICH TAKEN EITHER SINGLY OR IN COMBINATION COULD LESSEN IT.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW009165
PUBLICATION DATE: OCT 81

TITLE: PROCESS DESIGN MANUAL - LAND TREATMENT OF MUNICIPAL WASTEWATER.

DESCRIPTOR: *DESIGN; ENVIRONMENTAL IMPACT; HEALTH EFFECTS; *INSTRUCTINAL MATERIALS; LAND APPLICATION; *LAND TREATMENT; *MANUALS; *MUNICIPAL WASTES; PLANNING; *POSTSECONDARY EDUCATION; *PROCESS DESIGN; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 480P.

ABSTRACT: THIS MANUAL PRESENTS A RATIONAL PROCEDURE FOR THE DESIGN OF LAND TREATMENT SYSTEMS. SLOW RATE, RAPID INFILTRATION, AND OVERLAND FLOW PROCESSES FOR THE TREATMENT OF MUNICIPAL WASTEWATERS ARE DISCUSSED IN DETAIL, AND THE DESIGN CONCEPTS AND CRITERIA ARE PRESENTED. A TWO-PHASED PLANNING APPROACH TO SITE INVESTIGATION AND SELECTION IS ALSO PRESENTED. THE MANUAL INCLUDES EXAMPLES OF EACH PROCESS DESIGN. INFORMATION ON FIELD INVESTIGATIONS IS PRESENTED ALONG WITH SPECIAL CONSIDERATIONS FOR SMALL SCALE SYSTEMS. EQUATIONS AND PROCEDURES ARE INCLUDED TO ALLOW CALCULATIONS OF ENERGY REQUIREMENTS FOR LAND TREATMENT SYSTEMS. POTENTIAL HEALTH AND ENVIRONMENTAL EFFECTS AND CORRESPONDING MITIGATION MEASURES ARE DISCUSSED.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009166

PUBLICATION DATE: 83

TITLE: PROCEDURES MANUAL: ORGANICS DETECTION SYSTEM.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DETECTION; GAS CHROMATOGRAPHY; HYDROCARBONS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MANUALS; *MONITORING; *OHIO RIVER; *ORGANIC COMPOUNDS; *POSTSECONDARY EDUCATION; *RIVERS; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY

DESCRIPTIVE NOTE: 96P.

ABSTRACT: THIS MANUAL IS A STATE-OF-THE-ART REVIEW OF METHODOLOGY CURRENTLY IN USE IN THE OHIO RIVER VALLEY WATER SANITATION COMMISSION'S (ORSANCO) ORGANICS DETECTION SYSTEM, A 12-STATION NETWORK ESTABLISHED FOR THE DETECTION OF UNREPORTED SPILLS AND ACCIDENTAL DISCHARGES OF HALOGENATED ORGANIC CHEMICALS ALONG THE OHIO RIVER AND ITS MAJOR TRIBUTARIES. THE MANUAL PROVIDES STEP-BY-STEP INSTRUCTIONS IN THE OPERATION OF GAS CHROMATOGRAPH SYSTEMS FOR THE DETECTION AND IDENTIFICATION OF VOLATILE HALOGENATED HYDROCARBONS, SUCH AS CHLOROFORM AND CARBON TETRACHLORIDE, IN RIVER WATER.

AVAILABILITY: OHIO RIVER VALLEY, WATER SANITATION COMMISSION, 414 WALNUT STREET, CINCINNATI, OH 45202

IRIS ACCESSION NUMBER: EW009167

PUBLICATION DATE: JAN 83

TITLE: WASTEWATER MANAGEMENT IN RURAL LAKE AREAS - FINAL-GENERIC ENVIRONMENTAL IMPACT STATEMENT.

DESCRIPTOR: *CONSTRUCTION; *CONSTRUCTION GRANTS; *ECONOMIC FACTORS; *ENVIRONMENTAL IMPACT; ENVIRONMENTAL IMPACT STATEMENTS; *GUIDELINES; *LAKES; *MANAGEMENT; *PLANNING; *RURAL AREAS; SOCIAL FACTORS; *WASTEWATER TREATMENT; *WATER QUALITY; *WATERSHEDS

DESCRIPTIVE NOTE: 312P.

ABSTRACT: THIS EIS EXAMINES THE ENVIRONMENTAL, ECONOMIC AND SOCIAL COSTS WITHIN REGION V OF RURAL LAKE WASTEWATER PLANNING ESPECIALLY AS FUNDED AND MANAGED UNDER THE CLEAN WATER ACT. IT REVIEWS AND ANALYZES FACILITIES PLANNING AND ENVIRONMENTAL REVIEW METHODS FOR RURAL LAKE AREAS. IT USES SEVEN SAMPLE PROJECTS OF THIS TYPE TO PRESENT SPECIFIC RECOMMENDATIONS ABOUT DEVELOPMENT AND MANAGEMENT OF ON-SITE AND SMALL SCALE ALTERNATIVES TO CONVENTIONAL WASTEWATER TREATMENT. IT RECOMMENDS SPECIFIC METHODS TO DOCUMENT PROJECT NEED AND WATER QUALITY IMPACT. IT CONCLUDES THAT WHEREVER CONTINUED OPERATION OF A SUBSTANTIAL PERCENTAGE OF EXISTING SYSTEMS IS FEASIBLE, A WASTEWATER MANAGEMENT PROGRAM BASED ON OPTIMUM OPERATION OF EXISTING SYSTEMS WILL RESULT IN SUBSTANTIAL SAVINGS IN CAPITAL AND PRESENT WORTH COSTS. THE EIS OFFERS A COMPLETE MANUAL FOR PLANNING, CONSTRUCTION AND MANAGEMENT OF DECENTRALIZED RURAL LAKE PROJECTS WITH OR WITHOUT FEDERAL OR STATE ASSISTANCE. IT CAN BE USED, AND CONTAINS SPECIFIC ADVICE FOR PROJECTS OPERATING UNDER BOTH OLD (1977) AND NEW (1981) CONSTRUCTION GRANT AMENDMENTS.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, WATER DIVISION, 230 SOUTH DEARBORN STREET, CHICAGO, IL 60604

IRIS ACCESSION NUMBER: EW009170

PUBLICATION DATE: 79

TITLE: SCIENCE AND ENGINEERING TECHNICIAN CURRICULUM DEVELOPMENT PROJECT. FINAL REPORT.

PERSONAL AUTHOR: MOWERY, DONALD R.; WOLF, LAWRENCE J.

DESCRIPTOR: *COLLEGE SCIENCE; *CURRICULUM DEVELOPMENT; CURRICULUM EVALUATION; *ENGINEERING; *ENGINEERING EDUCATION; HIGHER EDUCATION; PHYSICAL SCIENCES; PROGRAM EVALUATION; SCIENCE CURRICULUM; SCIENCE EDUCATION; *STUDY GUIDES; *TECHNICAL EDUCATION; TECHNICAL MATHEMATICS

DESCRIPTIVE NOTE: 64P. EDRS PRICE - MF01/PC03 PLUS POSTAGE.

ABSTRACT: PROJECT SET (SCIENCE AND ENGINEERING FOR TECHNICIANS) DEVELOPED A SERIES OF STUDY GUIDES DESIGNED TO TEACH GENERIC SCIENCE AND ENGINEERING SKILLS TO STUDENTS INTERESTED IN BECOMING TECHNICIANS. AN ENTIRE 2-YEAR CURRICULUM IS ENCOMPASSED BY THESE GUIDES, GEARED FOR 2-YEAR COLLEGE STUDENTS. DESCRIBED IN THIS FINAL REPORT ARE THE PROJECT'S RATIONALE, GOALS, AND ACTIVITIES (CURRICULUM DESIGN AND TRIAL IMPLEMENTATION), STUDY GUIDE PRODUCTION, DISSEMINATION ACTIVITIES, AND EVALUATION ACTIVITIES. APPENDICES INCLUDE ADVISORY COMMITTEE LIST, COOPERATING COLLEGES LIST, SET STUDY GUIDE CONTENTS, AND SUMMARY EVALUATION FINDINGS/RECOMMENDATIONS BY KAREN C. COHEN. TOPICS OF STUDY GUIDE LISTS INCLUDE ALGEBRAIC/TRIGONOMETRIC EQUATIONS; ANALOG/DIGITAL ELECTRONICS; CHEMICAL SCIENCE/TECHNOLOGY; COMPUTER/CALCULATOR TECHNIQUES; CALCULUS; ELECTRONIC COMPONENTS, TRANSDUCERS, AND BASIC CIRCUITS; FUNCTIONS, ANALYTIC GEOMETRY, AND STATISTICS; ELECTRONIC INSTRUMENTATION; MATERIALS/FABRICATION METHODS; WRITING ORGANIZATION/EXPRESSION; PHYSICS OF ELECTROMAGNETIC OPTICAL AND SOLID STATE SYSTEMS; PHYSICS OF MECHANICAL GASEOUS/FLUID SYSTEMS; AND SCIENCE/ENGINEERING GRAPHICS. INSTRUMENTS USED AND COMPLETE RESULTS OF PRE- AND POST-SURVEYS OF TEACHERS AND STUDENTS ARE PROVIDED IN THE SUMMARY EVALUATION APPENDIX. RESULTS INDICATE THAT ALTHOUGH THE STUDY GUIDES WERE WELL RECEIVED THERE WAS NO INDICATION THAT THEY CAN BE USED IN SELF-STUDY OR STAND-ALONE FASHION.

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE (EDRS), P.O. BOX 190, ARLINGTON, VA 2210

IRIS ACCESSION NUMBER: EW009195

PUBLICATION DATE: 74

TITLE: CHEMICAL/PHYSICAL PROPERTIES OF OIL.

PERSONAL AUTHOR: U.S. EPA, ENVIRON. RES CTR, CINCINNATI, OH

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHEMICAL PROPERTIES; *INSTRUCTIONAL MATERIALS; *OIL; *PHYSICAL PROPERTIES; *POSTSECONDARY EDUCATION; *VIDEOCASSETTES

DESCRIPTIVE NOTE: 18P. RENTAL PRICE: $15.00. 25 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE; VC-18.

ABSTRACT: ANALYZES THE PHYSICAL AND CHEMICAL PROPERTIES OF OIL; IDENTIFIES VARIOUS TYPES OF PETROLEUM PRODUCTS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009196

PUBLICATION DATE: 74

TITLE: EFFECTS OF LEAD ON BROOK TROUT.

PERSONAL AUTHOR: MAXHAM FILMS

DESCRIPTOR: *AUDIOVISUAL AIDS; *ENVIRONMENTAL IMPACT; *FISH; *INSTRUCTIONAL MATERIALS; *LEAD; *PHYSIOLOGY; *TROUT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 7 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: DOCUMENTS THE GROWTH OF BROOK TROUT WHICH HAVE BEEN EXPOSED TO 130 AND 250 PPB OF LEAD OVER A PERIOD OF ONE YEAR. EXAMINES THEIR GROWTH DEFORMITY AND LOSS OF MOBILITY COMPARED TO A CONTROL GROUP OF HEALTHY BROOK TROUT. BIOASSAY DILUTION SYSTEMS ARE SHOWN.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009197

PUBLICATION DATE: 74

TITLE: STORM WATER POLLUTION CONTROL.

PERSONAL AUTHOR: VERIATION FILMS

DESCRIPTOR: *AUDIOVISUAL AIDS; *EPA; *FACILITIES; *HISTORY; *INSTRUCTIONAL MATERIALS; *POLLUTION CONTROL; *SEWERS; *STORM SEWERS; *SURFACE RUNOFF; *WASTEWATER COLLECTION; *WATER POLLUTION CONTROL; *VIDEOCASSETTES

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 40 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: PRESENTS A HISTORY OF STORM SEWERS AND THE INTRODUCTION OF WASTEWATER TREATMENT PLANTS. DISCUSSES PRESENT DAY COMBINED SEWERS AND SEWAGE OVERFLOW INTO LAKES AND STREAMS. A WIDE VARIETY OF RESPONSES TO THE OVERFLOW PROBLEM INCLUDING REMOTE MONITORING AND CONTROL; IN-LINE AND OFF-LINE STORAGE; AND TRAATMENT METHODS USING CHEMICALS, SEDIMENTATION, BIOLOGICAL PROCESSES AND PHYSICAL MEANS ARE DEMONSTRATED. VARIOUS EPA FUNDED PROJECTS ARE SHOWN.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009198

PUBLICATION DATE: 76

TITLE: FECAL COLIFORM BY THE MEMBRANE FILTER TECHNIQUE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *BACTERIA; *COLIFORM; *FILTRATION; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MEMBRANE FILTERS; *POSTSECONDARY EDUCATION; *SAMPLING; *VIDEOCASSETTES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 60 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: CONTAINS A THREE-PART SERIES WHICH EXPLAINS THE FECAL COLIFORM TEST USING THE MEMBRANE FILTER TECHNIQUE; PROCEDURES CONFORM TO THE 13TH EDITION OF STANDARD METHODS. THE ARRANGEMENT OF EQUIPMENT, PREPARATION OF SOLUTIONS, COLLECTION OF A SAMPLE, TEXT PROCEDURES AND INCUBATION, AND OBSERVATION OF COLONIES ARE DEMONSTRATED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009199

PUBLICATION DATE: 76

TITLE: SAFE DRINKING WATER: WHAT DOES IT MEAN TO YOU.

DESCRIPTOR: *AUDIOVISUAL AIDS; *DRINKING WATER; INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; *IMPLEMENTATION; *PUBLIC NOTIFICATION; *REGULATIONS; *SAFE DRINKING WATER ACT; *WATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 17 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE. VC-72. ITEM CAN SERVE AS AN EXAMPLE OF A PRODUCT THAT CAN BE DEVELOPED. THIS VC IS SOMEWHAT DATED.

ABSTRACT: DISCUSSES THE ROLE OF THE ELECTED OFFICIAL IN IMPLEMENTING THE SAFE DRINKING WATER ACT AND ITS SIGNIFICANCE TO THE PUBLIC. THE PROCESS AND IMPORTANCE OF PUBLIC NOTIFICATION OF UNSAFE CONTAMINANT LEVELS IN DRINKING WATER ARE EXAMINED FROM THE VIEWPOINT OF ELECTED OFFICIALS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009200

PUBLICATION DATE: 76

TITLE: SAFE DRINKING WATER ACT.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMMUNICATION; *DRINKING WATER; *LEGISLATION; *INSTRUCTIONAL MATERIALS; POSTSECONDARY EDUCATION; *PUBLIC PARTICIPATION; *SAFE DRINKING WATER ACT; *VIDEOCASSETTES; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 16 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: IMPLEMENTATION OF THE SAFE DRINKING WATER ACT IS DISCUSSED IN THIS FILM TRANSFERRED TO VIDEOTAPE. THE IMPORTANCE OF COMMUNICATION BETWEEN LOCAL OFFICIALS AND CITIZENS IS STRESSED BY A MEMBER OF THE NATIONAL DRINKING WATER ADVISORY COUNCIL.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009201

PUBLICATION DATE: 75

TITLE: FIRE DEPARTMENT RESPONSE TO OIL SPILLS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *OPERATIONS (OIL SPILLS); *OIL; *OIL SPILLS; *OIL SLICKS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 20 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: ILLUSTRATES THE EQUIPMENT AND TECHNIQUES USED BY THE MARINE DIVISION OF THE NEW YORK CITY FIRE DEPARTMENT TO CONTROL OIL SPILLS AND SLICKS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009202

PUBLICATION DATE: 79

TITLE: HEALTH AND SAFETY IN THE LABORATORY.

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMISTRY; *INSTRUCTIONAL MATERIALS; *LABORATORY SAFETY; *POSTSECONDARY EDUCATION; *SAFETY

DESCRIPTIVE NOTE: 22P. THIS IS THE SCRIPT TO XT-115. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: ILLUSTRATES SAFETY PROCEDURES IN THE CHEMICAL LABORATORY. TOPICS INCLUDE PROPER HANDLING OF ACIDS, SOLVENTS AND COMPRESSED GASSS; REAGENT LABELING; RESPIRATORS; HOUSEKEEPING; AND HOODS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009203

TITLE: STUDY GUIDE - GENERAL INTRODUCTION TO WASTEWATER TREATMENT, MODULE A. THE WASTEWATER TREATMENT PROCESS - AN ENHANCEMENT OF NATURE.

PERSONAL AUTHOR: LUSTIG, AL; LOPER, KIM HANSEN

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 38P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS STUDY GUIDE AND SCRIPT ACCOMPANIES A 20-MINUTE VIDEOCASSETTE WHICH EMPHASIZES PRETREATMENT; PRIMARY, SECONDARY, AND TERTIARY TREATMENT; DISINFECTION; AND SLUDGE HANDLING. THE EFFECT OF POLLUTION ON RECEIVING STREAM WATER QUALITY IS INTRODUCED. THE GUIDE DEFINES OVER 50 TERMS, PROVIDES A SELF-CHECKING OR TEST EXERCISE, AND SUGGESTS POST-VIEWING ACTIVITIES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009204

PUBLICATION DATE: MAR 81

TITLE: DOMESTIC WATER QUALITY TESTING.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *DRINKING WATER; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SLIDES; *WATER QUALITY; *WATER TESTING

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; CONTACT EPA/IRC FOR PURCHASE PRICE. 68 SLIDES AND 11 MINUTE TAPE.

ABSTRACT: WATER TESTING FOR BOTH MUNICIPALITIES AND INDIVIDUALS IS CONDUCTED BY THE NEBRASKA HEALTH DEPARTMENT LABORATORIES. THE SLIDE-TAPE PRESENTATION EXPLAINS HOW TO HAVE WATER TESTED FOR DRINKING QUALITY, THE TWO TESTS PERFORMED, AND HOW TO GET HELP IF THE WATER DOES NOT MEET RECOMMENDED STANDARDS. ALTHOUGH PRODUCED SPECIFICALLY FOR NEBRASKA, THE PROGRAM SERVES AS AN EXAMPLE OF A LOW-COST AUDIO-VISUAL PROGRAM THAT COULD BE PRODUCED BY OTHERS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009205

TITLE: NEBRASKA'S WATER QUALITY MANAGEMENT PLAN: 208 OVERVIEW.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CLEAN WATER ACT; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *NEBRASKA; *NONPOINT POLLUTION; *PLANNING; *SLIDES; *WATER QUALITY

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 76 SLIDES AND 9 MINUTE TAPE.

ABSTRACT: DESCRIBES NEBRASKA'S SECTION 208 WATER QUALITY MANAGEMENT PLAN BASED ON THE CLEAN WATER ACT OF 1972. THE PLAN EMPHASIZES CONTROL OF NON-POINT SOURCES OF POLLUTION INCLUDING SEDIMENT, SALT, NUTRIENTS AND PESTICIDES; SEVERAL MANAGEMENT PRACTICES ARE RECOMMENDED. THIS SLIDE-TAPE MAY BE USED AS A LOW COST MODEL FOR OTHER STATES IN DEVELOPING AUDIO-VISUAL PROGRAMS TO EXPLAIN THEIR 208 PLANS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009206
PUBLICATION DATE: JUN 82

TITLE: HAZARDOUS WASTE MANAGEMENT REQUIREMENTS: A PRESENTATION FOR PESTICIDE APPLICATORS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *HAZARDOUS WASTES; *MANAGEMENT; *PESTICIDES; *PESTICIDE APPLICATORS; *POSTSECONDARY EDUCATION; *WASTE DISPOSAL; *SLIDES

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 80 SLIDES, 14-MINUTE TAPE, AND SCRIPT.

ABSTRACT: THIS SLIDE-TAPE PROGRAM EXPLAINS HAZARDOUS WASTE MANAGEMENT REQUIREMENTS WITH EMPHASIS ON HOW THEY AFFECT PESTICIDE APPLICATORS. IT DEFINES HAZARDOUS WASTES; DISCUSSES TYPES OF HAZARDOUS WASTES PRODUCED BY PESTICIDE APPLICATORS; HOW TO DETERMINE IF YOU HAVE HAZARDOUS WASTE; AND HOW TO PROPERLY DISPOSE OF IT. SAMPLES OF PESTICIDES ON LIST I - ACUTE HAZARDOUS WASTE, AND LIST II - MODERATELY HAZARDOUS WASTE INCLUDING INSECTICIDES, HERBICIDES, AND RODENTICIDES ARE DESCRIBED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009217

PUBLICATION DATE: MAY 82

TITLE: SEARCHING FOR SOLUTIONS - A CITIZEN'S GUIDE TO HAZARDOUS WASTE MANAGEMENT IN OHIO.

PERSONAL AUTHOR: CLAPHAM, PETE

DESCRIPTOR: *CITIZEN PARTICIPATION; FACILITIES; FEDERAL-STATE RELATIONSHIP; *GUIDES; *HAZARDOUS MATERIALS; *HAZARDOUS WASTES; *OHIO; POLLUTANTS; TECHNOLOGY; *TOXIC SUBSTANCES; *WASTE DISPOSAL; *WASTE MANAGEMENT

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THE INTENT OF THIS PUBLICATION IS TO PROMOTE RESPONSIBLE HAZARDOUS WASTE MANAGEMENT IN OHIO. THE GUIDE EXPLAINS WHAT CONSTITUTES A HAZARDOUS WASTE, THE FEDERAL AND STATE FRAMEWORK FOR MANAGING HAZARDOUS WASTES, VARIOUS TYPES OF MANAGEMENT TECHNOLOGIES, HOW TO BECOME INVOLVED IN THE PERMITTING AND FACILITY SITING PROCESS, HOW TO REPORT A HAZARDOUS MATERIALS SPILL, AND HOW TO RECOGNIZE AN ABANDONED HAZARDOUS WASTE DUMP SITE.

AVAILABILITY: OHIO ENVIRONMENTAL COUNCIL, 1500 WEST THIRD AVENUE, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009219
PUBLICATION DATE: 82

TITLE: RISK ASSESSMENT AT HAZARDOUS WASTE SITES.

PERSONAL AUTHOR: LONG, F. A.; SCHWEITZER, GLENN E.

DESCRIPTOR: *CASE STUDIES; *CHEMICALS; *HAZARDOUS WASTE; *INDUSTRIAL WASTES; *MONITORING; *PUBLIC HEALTH; *RISK ASSESSMENT; *SITE SELECTION; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 129P. PRICE: $19.95; SERIES NO. SS 204

ABSTRACT: THIS PUBLICATION PROVIDES AN ANALYSIS OF HAZARDOUS CHEMICAL WASTE SITES. PROBLEMS OF ASSESSING AND MONITORING WASTES ARE CONSIDERED. METHODS AND GUIDELINES FOR RISK ASSESSMENT ARE DISCUSSED. SPECIFIC CASES AND DANGERS TO HUMAN HEALTH ARE EXAMINED.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 263, 1155 H ST., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW009220

PUBLICATION DATE: 83

TITLE: TREATMENT OF WATER BY GRANULAR ACTIVATED CARBON.

PERSONAL AUTHOR: MCGUIRE, MICHAEL J.; SUFFET, I. H.

DESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; *CASE HISTORIES; *MODELS; *OPERATIONS (WATER); *ORGANIC COMPOUNDS; *WATER TREATMENT

DESCRIPTIVE NOTE: 600P. PRICE: $61.94; SERIES NO. AD 202

ABSTRACT: THIS PUBLICATION PROVIDES AN UPDATE OF ACTIVATED CARBON ADSORPTION FOR WATER TREATMENT APPLICATIONS. DEALS WITH THEORETICAL MODELING, COMPETITIVE ADSORPTION, BIOLOGICAL/ADSORPTION INTERACTIONS, AND CASE STUDIES.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 263, 1155-16TH STREET, N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW009221

TITLE: HAZARDOUS WASTE: WHO BEARS THE COST?

DESCRIPTOR: *AUDIOVISUAL AIDS; *CASE STUDIES; *FILMS; *HAZARDOUS WASTES; *ISSUES; *MASSACHUSETTS; *PUBLIC HEALTH; *TOXIC WASTES; *WASTE DISPOSAL; *WASTE TREATMENT

DESCRIPTIVE NOTE: 30 MINUTE FILM. PRICE: $50/DAY RENTAL; $425.00 PURCHASE.

ABSTRACT: THIS FILM LOOKS AT HAZARDOUS WASTE AS A LOCAL AND NATIONAL ISSUE--WHAT IT IS, WHERE IT COMES FROM AND HOW IT AFFECTS US. WOBURN, MASSACHUSETTS, THIRD ON EPA'S SUPERFUND

LIST AND THE NATION'S OLDEST CHEMICAL WASTE DUMP, IS EXAMINED AS A CASE STUDY OF AN AFFECTED COMMUNITY. POTENTIAL SOLUTIONS TO THE PROBLEM, SUCH AS RCRA, SUPERFUND, AND NEW TECHNOLOGIES FOR TREATMENT AND DISPOSAL OF TOXIC WASTES, ARE ALSO FEATURED. OTHER TOPICS INCLUDE: AQUIFER POLLUTION, CITIZEN ORGANIZING, AND ECONOMIC IMPACT ON A COMMUNITY.

AVAILABILITY: UMBRELLA FILMS, 60 BLAKE ROAD, BROOKLINE, MA 02146

IRIS ACCESSION NUMBER: EW009223

PUBLICATION DATE: 83

TITLE: INTRODUCTION TO WATER QUALITY ANALYSES - PRINCIPLES AND PRACTICES OF WATER SUPPLY OPERATIONS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; OPERATIONS (WATER); *OPERATOR TRAINING; *POSTSECONDARY EDUCATION; *TEXTBOOKS; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 155P.

ABSTRACT: THIS TEXT PRESENTS MATERIAL ON WATER QUALITY ANALYSES FOR WATER SUPPLY FACILITY OPERATORS. THE MATERIAL COVERS FIVE MAJOR AREAS: DRINKING WATER STANDARDS; SAMPLE COLLECTION, PRESERVATION, AND STORAGE; USE OF LABORATORY EQUIPMENT; MICROBIOLOGICAL TESTS; AND PHYSICAL/CHEMICAL TESTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW009224

PUBLICATION DATE: 83

TITLE: INTRODUCTION TO WATER QUALITY ANALYSES - PRINCIPLES AND PRACTICES OF WATER SUPPLY OPERATIONS--INSTRUCTOR GUIDE AND SOLUTIONS MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; OPERATIONS (WATER); *OPERATOR TRAINING; *POSTSECONDARY EDUCATION; *TEACHING GUIDES; TRAINING PROGRAMS; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 218P.

ABSTRACT: THIS INSTRUCTOR'S GUIDE CONTAINS THE NECESSARY RESOURCE MATERIAL FOR TEACHING AND EVALUATING STUDENT PERFORMANCE FOR THE FOLLOWING MODULES OF INSTRUCTION: DRINKING WATER STANDARDS; SAMPLE COLLECTION, PRESERVATION, AND STORAGE; WATER LABORATORY EQUIPMENT AND INSTRUMENTS; MICROBIOLOGICAL TESTS; AND PHYSICAL/CHEMICAL TESTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW009225

PUBLICATION DATE: 76

TITLE: INDUSTRIAL ABATEMENT -- AIR MANAGEMENT.

PERSONAL AUTHOR: MORSE, RONALD J.

DESCRIPTOR: *AIR POLLUTION; *AIR QUALITY; *INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POLLUTION CONTROL; *POSTSECONDARY EDUCATION; *STUDY GUIDES

DESCRIPTIVE NOTE: 502P.

ABSTRACT: THE INDUSTRIAL ABATEMENT-AIR MANAGEMENT MANUAL HAS BEEN PREPARED TO ASSIST THE TRAINEE AND THE INSTRUCTOR TO ACHIEVE THE OBJECTIVES OF THE INDUSTRIAL ABATEMENT-AIR MANAGEMENT COURSE, WHICH HAS BEEN DEVELOPED TO FAMILIARIZE NEW PERSONNEL WITH THE AIR MANAGEMENT ASPECTS OF INDUSTRIAL ABATEMENT, AND TO INCREASE THE EFFICIENCY OF PROVINCIAL OFFICERS INVOLVED WITH THOSE DUTIES. THE COURSE CONSISTS OF THREE PARTS, EACH OF APPROXIMATELY FIVE DAYS DURATION. IN ORDER TO QUALIFY FOR THE AWARD OF A CERTIFICATE, THE TRAINEE MUST HAVE ACHIEVED A PASS MARK OF AT LEAST 60 PER CENT IN THE EXAMINATION SET AT THE END OF EACH PART OF THE COURSE.

AVAILABILITY: MINISTRY OF GOVERNMENT SERVICES, PUBLICATIONS CENTRE, 3RD BASEMENT LEVEL, MACDONALD BLOCK, QUEEN'S PARK, TORONTO, ONTARIO, M7A 1N8, CANADA

IRIS ACCESSION NUMBER: EW009229

PUBLICATION DATE: MAY 83

TITLE: RISKS: HOW TO GET MORE SCIENCE IN ASSESSMENTS.

PERSONAL AUTHOR: MILLER, STANTON

DESCRIPTOR: *CHEMICALS; *FEDERAL ROLE; *PUBLIC HEALTH; *REVIEW PROCESS; *SCIENTIFIC REVIEW; *RISK ASSESSMENT

DESCRIPTIVE NOTE: 199A-200AP.

ABSTRACT: A PROPOSED, INDEPENDENT BOARD WITHIN THE NATIONAL RESEARCH COUNCIL WOULD PROVIDE STANDARD PROCEDURES FOR ESTIMATING THE HEALTH EFFECTS OF HUMAN EXPOSURE TO HAZARDOUS CHEMICALS, DRUGS, AND FOOD ADDITIVES.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N5

IRIS ACCESSION NUMBER: EW009230

PUBLICATION DATE: MAY 83

TITLE: ALCOHOL FUELS FROM BIOMASS.

PERSONAL AUTHOR: HIRA, AYUB U.; AND OTHERS

DESCRIPTOR: AIR POLLUTION; *ALCOHOL; *BIOMASS; FACILITIES; *FUEL PRODUCTION; *FUELS; *HEALTH; *INDUSTRIAL WASTES;

*SAFETY; SOLID WASTES; WASTE DISPOSAL; WASTEWATER TREATMENT; WATER POLLUTION

DESCRIPTIVE NOTE: 202A-213AP.

ABSTRACT: PRESENTED IS AN OVERVIEW OF AIR, WATER, SOLID WASTE, AND OCCUPATIONAL SAFETY AND HEALTH PROBLEMS THAT MIGHT ARISE AT BIOMASS-BASED ETHANOL AND METHANOL PRODUCTION FACILITIES.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N5

IRIS ACCESSION NUMBER: EW009231

PUBLICATION DATE: MAY 83

TITLE: MUTAGENICITY OF MUNICIPAL SEWAGE SLUDGES OF AMERICAN CITIES.

PERSONAL AUTHOR: BABISH, JOHN G.; AND OTHERS

DESCRIPTOR: *MUTAGENICITY; *PUBLIC HEALTH; *RESEARCH REPORTS; *SLUDGE; *TOXIC PROPERTIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 272-277P.

ABSTRACT: SLUDGE SAMPLES FROM 34 CITIES WERE TESTED FOR MUTAGENICITY. RESULTS ARE REPORTED. WHILE MUTAGENICITY WAS DEMONSTRATED BY SOME SAMPLES, NO ASSOCIATION WAS IDENTIFIED BETWEEN THE INDEPENDENT VARIABLES PERCENT INDUSTRIALIZATION, WASTEWATER TREATMENT SCHEME, AND CHEMICAL ADDITIVES.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N5

IRIS ACCESSION NUMBER: EW009232

PUBLICATION DATE: JUN 83

TITLE: LIMIT OF DETECTION - A CLOSER LOOK AT THE IUPAC DEFINITION

PERSONAL AUTHOR: LONG, GARY L.; WINEFORDNER, J. D.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DATA ANALYSIS; *IUPAC DEFINITIONS; *LIMITS OF DETECTION; *LABORATORY PROCEDURES; *PERFORMANCE EVALUATION; *RECOMMENAATIONS; *STATISTICS

DESCRIPTIVE NOTE: 712A-714AP.

ABSTRACT: THE LIMIT OF DETECTION IS THE LOWEST CONCENTRATION LEVEL THAT CAN BE DETERMINED TO BE STATISTICALLY DIFFERENT FROM AN ANALYTICAL BLANK. SIGNIFICANT PROBLEMS HAVE BEEN ENCOUNTERED IN EXPRESSING THESE VALUES BECAUSE OF THE VARIOUS APPROACHES TO THE TERM "STATISTICALLY DIFFERENT."

AVAILABILITY: ANALYTICAL CHEMISTRY; V55 N7

IRIS ACCESSION NUMBER: EW009233

PUBLICATION DATE: JUN 83

TITLE: LANGUAGES FOR THE LABORATORY: PART II.

PERSONAL AUTHOR: DESSY, RAYMOND

DESCRIPTOR: *APL; *COMPUTER APPLICATIONS; *COMPUTER LANGUAGES; *BASIC; *C LANGUAGE; *FORTH; *FORTRAN 77; *PASCAL

DESCRIPTIVE NOTE: 756A-766AP.

ABSTRACT: THIS ARTICLE DESCRIBES SEVERAL COMPUTER LANGUAGES FOR LABORATORY USE. INCLUDED ARE FORTH, PASCAL, APL, C LANGUAGE, BASIC, AND FORTRAN 77.

AVAILABILITY: ANALYTICAL CHEMISTRY; V55 N7

IRIS ACCESSION NUMBER: EW009238

PUBLICATION DATE: MAY 83

TITLE: TERTIARY TREATMENT OF WASTEWATER USING FLOW-THROUGH WETLANDS.

PERSONAL AUTHOR: HELLE, STEVEN C.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ECONOMICS; *ENVIRONMENTAL IMPACT; LAND APPLICATION; LAND USE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TERTIARY TREATMENT; *WASTEWATER TREATMENT; *WETLANDS

DESCRIPTIVE NOTE: 10-12P.

ABSTRACT: DESCRIBED IS A STUDY OF THE USE OF WETLANDS IN FLORIDA FOR TERTIARY TREATMENT OF WASTEWATER. IT WAS CONCLUDED THAT THE USE OF A FLOW-THROUGH WETLAND SYSTEM APPEARS TO BE A WORKABLE AND ECONOMIC ALTERNATIVE TO CONVENTIONAL PHYSICAL-CHEMICAL TREATMENT METHODS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009239

PUBLICATION DATE: MAY 83

TITLE: WATER FOR A MAN-MADE OASIS.

DESCRIPTOR: *DRINKING WATER; *FACILITIES; *NEVADA; *OPERATIONS (WATER); *POTABLE WATER; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 24-25P.

ABSTRACT: HOOVER DAM, LAKE MEAD, AND THE USE OF WATER FROM THE RESERVOIR MAKE LAS VEGAS POSSIBLE. THE LAS VEGAS WATER TREATMENT SYSTEM AND PROCESSES IT USE ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009240
PUBLICATION DATE: MAY 83

TITLE: MORE TO LEARN ABOUT DISINFECTION.

PERSONAL AUTHOR: BRYAN, EDWARD H.

DESCRIPTOR: *DISINFECTION; *RESEARCH; *SLUDGE; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 26-28P.

ABSTRACT: THIS ARTICLE DESCRIBES SOME RECENT RESEARCH ON DISINFECTION OF WATER AND WASTEWATER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009241

PUBLICATION DATE: MAY 83

TITLE: SAMPLER AIDS MONITORING OF SLUDGE DISINFECTED WITH ELECTRON BEAMS.

PERSONAL AUTHOR: MORGAN, JOHN

DESCRIPTOR: *DISINFECTION; *EQUIPMENT; *OCEAN DISPERSAL; *OPERATIONS (WASTEWATER); *SAMPLING; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26-28P.

ABSTRACT: DESCRIBED IS A PROCESS FOR DISINFECTING LIQUID SLUDGE WITH MACHINE-ACCELERATED ELECTRONS. THE PROCESS APPEARS TO BE COST EFFECTIVE FOR PLANTS THAT CAN USE OCEAN DISPERSAL.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009242

PUBLICATION DATE: MAY 83

TITLE: THERE IS AN ANSWER TO GROUNDWATER CONTAMINATION.

PERSONAL AUTHOR: O'BRIEN, ROBERT P.; FISHER, J. L.

DESCRIPTOR: *ACTIVATED CARBON; *CONTAMINATION; *COSTS; *GRANULAR ACTIVATED CARBON; *GROUNDWATER; *ORGANIC COMPOUNDS; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 30-36P.

ABSTRACT: DURING THE LAST FEW YEARS CONSIDERABLE INFORMATION HAS BEEN GAINED IN TREATING GROUNDWATER CONTAINING ORGANIC CONTAMINANTS WITH GRANULAR ACTIVATED CARBON. DATA ARE PRESENTED FOR A NUMBER OF CONTAMINANTS SHOWING INFLUENT AND EFFLUENT CONCENTRATIONS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009243

PUBLICATION DATE: MAY 83

TITLE: WATER STORAGE AND MORE.

DESCRIPTOR: *DESIGN; *DRINKING WATER; *FACILITIES; *WATER STORAGE; *WATER TANKS; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 45-48P.

ABSTRACT: THIS ARTICLE DESCRIBES NEW DESIGNS FOR WATER TANKS THAT INCORPORATE WATER STORAGE AND OTHER FACILITIES. PICTURES OF SEVERAL FACILITIES ARE INCLUDED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009244

TITLE: WATER PLANT ON A FAST TRACK.

PERSONAL AUTHOR: EBEL, L. A.; HARGRAVES, R. E.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *DRINKING WATER; *FACILITIES; *ILLINOIS; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 50-52,90P.

ABSTRACT: DESCRIBED IS THE MODIFICATION OF A WATER TREATMENT PLANT IN ILLINOIS. THE PLANT IS AN INVESTOR OWNED PLANT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N5

IRIS ACCESSION NUMBER: EW009262

TITLE: PRACTICAL ELECTRICITY, PART 1A. ELECTRON MOVEMENT, VOLTS, AMPS, AND OHMS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ELECTRICITY; *ELECTRONS; *ELECTRICAL CHARGES; *ELECTRICAL CIRCUITS; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION

ABSTRACT: ANALOGIES ARE USED TO EXPLAIN THE ATOM, PROTONS, ELECTRONS, AND ELECTRICAL CHARGES. THE IMPORTANCE OF STATIC ELECTRICITY AND THE CHEMICAL ACTION OF BATTERIES ARE DISCUSSED. MEASUREMENT OF ELECTRICITY USING VOLTS, AMPS AND OHMS IS DEFINED. THE THREE BASIC KINDS OF CIRCUITS ARE EXPLAINED.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 - 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW009263
TITLE: PRACTICAL ELECTRICITY, PART 1B. MAGNETISM & INDUCTION.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ELECTRICITY; *INDUCTION; *INSTRUCTIONAL MATERIALS; *MAGNETISM; *POST SECONDARY EDUCATION

ABSTRACT: EXPLAINS MAGNETISM, FORCE FIELDS, CONDUCTORS AND THE INDUCEMENT OF ELECTRICITY. ILLUSTRATES HOW ELECTROMAGNETS WORK AND DESCRIBES THE WORKINGS OF A TRANSFORMER, INCLUDING STEP-UP AND STEP-DOWN OF ELECTRICITY. DESCRIPTIVE ANALOGIES ARE USED THROUGHOUT THE PRESENTATION.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 - 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW009264

TITLE: PRACTICAL ELECTRICITY, PART 2. ELECTROCHEMICAL AND MECHANICAL COMPONENTS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ELECTRICITY; *ELECTRICAL EQUIPMENT; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION

ABSTRACT: DETAILS THE OPERATION OF GENERATORS, MOTORS, SOLENOIDS, BATTERIES, AND A VARIETY OF SWITCHES.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 - 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW009265

TITLE: PRACTICAL ELECTRICITY, PART 3. SOLID-STATE COMPONENTS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONDUCTORS; *ELECTRICITY: *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SEMICONDUCTORS; *SOLID STATE COMPONENTS

ABSTRACT: DEFINES AND DESCRIBES CONDUCTORS, INCLUDING WIRE GAUGES AND TYPES; CIRCUIT BOARDS; INSULATORS AND CAPACITATORS; RESISTORS AND FUSES; AND SEMI-CONDUCTORS, INCLUDING N AND P TYPES, L.E.D.'S, PHOTODIODES, TRANSISTORS, AND S.C.R.'S.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 - 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW009266

TITLE: PRACTICAL ELECTRICITY, PART 4. ELECTRICAL SCHEMATICS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ELECTRICITY; *ELECTRICAL SCHEMATICS; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION

ABSTRACT: ILLUSTRATES ELECTRICAL SCHEMATICS INCLUDING THE BATTERY, GENERATOR, RESISTORS, CAPACITORS, RECTIFIERS, PHOTOTRANSISTORS, SWITCHES, FUSES, SOLENOIDS AND A VARIETY OF COMBINATIONS.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 - 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW009275

TITLE: WATER FOR THE ENERGY MARKET.

PERSONAL AUTHOR: FOLK-WILLIAMS, J. A.

DESCRIPTOR: *COAL; *DECISION MAKING; *DEVELOPMENT; *ENERGY; *PLANNING; *POLICIES; *PROJECT DEVELOPMENT; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 130P. PRICE: $35.00; $20.00 FOR GOVERNMENT AND NON-PROFIT ORGANIZATIONS.

ABSTRACT: THIS IS THE SECOND VOLUME OF WATER IN THE WEST AND SUMMARIZES ISSUES SURROUNDING THE ACQUISITION OF WATER SUPPLIES FOR ENERGY PROJECTS IN THE COAL-PRODUCING STATES OF THE MOUNTAIN WEST. THE ANALYTICAL SECTION REVIEWS DECISION-MAKING IN SIX KEY RESOURCE MANAGEMENT AREAS: ENERGY FACILITY SITING, FEDERAL COAL LEASING, COAL MINE PLAN APPROVAL, WATER PROJECT CONSTRUCTION, FEDERAL WATER CONTRACTING, AND STATE WATER RE-ALLOCATION SYSTEMS. THE SURVEY SECTION PRESENTS DETAILED INFORMATION ON EACH DISPUTE, AND A DOCUMENTARY SECTION CONTAINS NEW DECISION-MAKING PROPOSALS INCLUDING NEGOTIATED AGREEMENTS DERIVED FROM RECENT EXPERIENCE.

AVAILABILITY: WESTERN NETWORK, 214 MCKENZIE, SANTA FE, NM 87501

IRIS ACCESSION NUMBER: EW009276

TITLE: TO QUENCH OUR THIRST: THE PRESENT AND FUTURE STATUS OF FRESHWATER RESOURCES OF THE U.S.

PERSONAL AUTHOR: FRANCKO, D. A.; WETZEL, R. G.

DESCRIPTOR: ECONOMICS; *FRESHWATER; *FUTURES OF SOCIETY; *HISTORY; *PLANNING; *POLICIES; *POPULATION GROWTH; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 148P. PRICE: $8.50 PAPER

ABSTRACT: THIS PUBLICATION ANALYZES WATER AVAILABILITY PROBLEMS AND PROPOSED SOLUTIONS. CHAPTERS INCLUDE: WATER SUPPLY AND DEMAND CRISES IN CONTEMPORARY AMERICA; THE DYNAMICS OF FRESHWATER IN THE U.S.; DEGRADATION OF SUPPLIES; HUMAN POPULATIONS AND WATER CRISES: A HISTORICAL PERSPECTIVE; WHICH WAY TO GO?; AND WHAT MUST CHANGE. THE AUTHORS NOTE THAT CORRECTIVE MEASURES TO REDUCE INEFFICIENT CONSUMPTION, USE, AND DEGRADATION OF EXISTING SUPPLIES CAN BE ACCOMPLISHED WITH EXISTING TECHNOLOGY WITHOUT LOSSES OF

REAL ECONOMIC PRODUCTIVITY.
AVAILABILITY: UNIVERSITY OF MICHIGAN PRESS, DEPT. FW, P.O. BOX 1104, ANN ARBOR, MI 48106

IRIS ACCESSION NUMBER: EW009277

TITLE: A MODEL MUNICIPAL ORDINANCE FOR CONTROL OF TOXIC AND HAZARDOUS MATERIALS.

DESCRIPTOR: *HAZARDOUS MATERIALS; LEAKS; *NEW JERSEY; *ORDINANCES; *POLLUTION CONTROL; *REGISTRATION; *REGULATIONS; SPILLS; *TOXIC MATERIALS

DESCRIPTIVE NOTE: PRICE: $2.00

ABSTRACT: THIS IS A MODEL MUNICIPAL ORDINANCE FOR CONTROL OF TOXIC AND HAZARDOUS MATERIALS WRITTEN BY THE PASSAIC VALLEY GROUND WATER PROTECTION COMMITTEE. THE ORDINANCE PROVIDES FOR THE REGISTRATION AND CONTROL OF STORAGE CONTAINERS AND UNDERGROUND TANKS, THE REPORTING OF SPILLS AND LEAKS, AND ENFORCEMENT AND PENALTIES.

AVAILABILITY: PASSAIC VALLEY GROUND WATER PROTECTION COMM., 246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920

IRIS ACCESSION NUMBER: EW009278

PUBLICATION DATE: 82

TITLE: CHEMISTRY OF PESTICIDES.

PERSONAL AUTHOR: BUCHEL, K. H.

DESCRIPTOR: AGRICULTURE; *BIOLOGICAL CHARACTERISTICS; *CHEMISTRY; *CHEMICAL REACTIONS; CHEMICALS; *CHEMICAL FORMULAS; *COMMERCIAL PESTICIDES; *PESTICIDES; *SOURCEBOOKS; *TOXICITY

DESCRIPTIVE NOTE: 912P. PRICE: $90.00

ABSTRACT: THIS COMPREHENSIVE SOURCEBOOK PROVIDES ACCURATE, IN-DEPTH DATA ON MORE THAN 1,500 AGRICULTURAL CHEMICALS, INCLUDING INSECTICIDES, RODENTICIDES, FUNGICIDES, BACTERICIDES, AND HERBICIDES. IT PRESENTS THE FORMULA, ALTERNATIVE NAMES, USE CHARACTERISTICS, AND TOXICITY DATA OF EACH COMPOUND, AND DESCRIBES THE PRINCIPAL SYNTHESIS ROUTE AND BIOLOGICAL CHARACTERISTICS OF MANY COMPOUNDS. THIS PRACTICAL VOLUME DEALS WITH VIRTUALLY ALL COMMERCIAL PESTICIDES, COVERING FORMULATION AIDS AS WELL AS SOME EXPERIMENTAL AND HISTORICAL PRODUCTS. ALSO INCLUDED ARE EXTENSIVE INDEXES AND MORE THAN 1,550 REFERENCES FOR FURTHER READING.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW009279
PUBLICATION DATE: 82

TITLE: AEROSOL TECHNOLOGY - PROPERTIES, BEHAVIOR, AND MEASUREMENT OF AIRBORNE PARTICLES.

PERSONAL AUTHOR: HINDS, WILLIAM C.

DESCRIPTOR: *AEROSOLS; *CHEMICAL PROPERTIES; *FORCES; *MOTION; *PHYSICAL PROPERTIES; *TECHNOLOGY

DESCRIPTIVE NOTE: 448P. PRICE: $39.95

ABSTRACT: THIS AUTHORITATIVE VOLUME ON THE PROPERTIES, BEHAVIOR, AND PHYSICAL PRINCIPLES OF AEROSOLS EMPHASIZES PHYSICAL RATHER THAN MATHEMATICAL ANALYSIS. THE BOOK GIVES YOU COMPLETE COVERAGE OF THE FIELD OF AEROSOL TECHNOLOGY. IT FEATURES CAREFUL DEVELOPMENT AND EXPOSITION OF THE BASIC CONCEPTS OF AEROSOL SCIENCE, SUCH AS PARTICLE MOTION, FORCES ON PARTICLES, AND THE INTERACTIONS OF PARTICLES WITH THE SUSPENDING GAS, OTHER PARTICLES, AND ELECTROMAGNETIC RADIATION.

AVAILABILITY: JOHN WILEY & SONS, ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW009280

PUBLICATION DATE: JUN 83

TITLE: ENGINEERING EXCELLENCE AWARD WINNERS.

DESCRIPTOR: *AWARDS; *CONSTRUCTION; *CONSULTING ENGINEERS; *DESIGN; ENERGY; *ENGINEERING; NUCLEAR WASTES; OZONATION; RESEARCH; STORMWATER; TRASSPORTATION; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 68-79P.

ABSTRACT: THIS ARTICLE LISTS THE 22 ENGINEERING PROJECTS THAT WERE SELECTED AS WINNERS IN THIS YEAR'S ENGINEERING EXCELLENCE AWARDS COMPETITION SPONSORED BY AMERICAN CONSULTING ENGINEERS COUNCIL. PROJECTS WERE CLASSIFIED BY SIX CATAGORIES: STUDIES, RESEARCH, CONSULTING ENGINEERING SERVICES AND PROJECT DESIGN SERVICES FOR BUILDINGS, ENERGY, ENVIRONMENT, TRANSPORTATION AND SPECIAL PROJECTS.

AVAILABILITY: CONSULTING ENGINEER; V60 N6

IRIS ACCESSION NUMBER: EW009281

PUBLICATION DATE: JUN 83

TITLE: 'LET'S COMPUTERIZE!' THE QUIET REVOLUTION AT THE WATERWORKS.

PERSONAL AUTHOR: WESTERHOFF, GARET P.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTERS; *COSTS; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER);

*PERFORMANCE; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 31-34P.

ABSTRACT: THIS ARTICLE REVIEWS THE WAYS THAT THE COMPUTER CAN BENEFIT THE WATER AND WASTEWATER INDUSTRY AND DISCUSSES HOW PLANT MANAGERS SHOULD GO ABOUT SELECTING A SYSTEM TO MEET THEIR NEEDS.

AVAILABILITY: AMERICAN CITY 8 COUNTY; V98 N6

IRIS ACCESSION NUMBER: EW009282

PUBLICATION DATE: JUN 83

TITLE: FROM DREAM TO REALITY: LAKE MICHIGAN WATER FOR FOUR CHICAGO SUBURBS.

PERSONAL AUTHOR: CALLAN, JOHN E.

DESCRIPTOR: ADMINISTRATION; *CASE STUDIES; *CONSTRUCTION; ECONOMIC FACTORS; *ILLINOIS; *LAKE MICHIGAN; *MANAGEMENT; *OPERATIONS (WATER); PLANNING; POTABLE WATER; *PROJECT DESCRIPTIONS; WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 262-265P.

ABSTRACT: THE FIRST OF SEVERAL LARGE COOPERATIVE WATER SUPPLY SYSTEMS TO PROVIDE POTABLE WATER FROM LAKE MICHIGAN TO CHICAGO SUBURBS IS UNDER CONSTRUCTION. IT TOOK 25 YEARS OF LITIGATION TO SECURE THE ALLOCATION OF WATER FROM LAKE MICHIGAN AND MORE THAN 200 PERMITS FROM PRIVATE PROPERTY OWNERS AND STATE AND LOCAL AGENCIES BEFORE THE PROJECT COULD BE IMPLEMENTED. THE AUTHOR DESCRIBES THE ORGANIZATION AND RESPONSIBILITIES OF THE ADMINISTRATIVE WATER COMMISSION AND THE FINANCING AND SCOPE OF THE PROJECT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009283

PUBLICATION DATE: JUN 83

TITLE: GROUNDWATER LAWS: OPPORTUNITIES FOR MANAGEMENT AND PROTECTION.

PERSONAL AUTHOR: BALLEW, WALTER W., III

DESCRIPTOR: *GEORGIA; *GROUNDWATER; *LAWS; *LEGAL ASPECTS; *LEGISLATION; *MANAGEMENT; POLICY FORMATION; POLLUTION CONTROL; *RECOMMENDATIONS; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 280-287P.

ABSTRACT: THE AUTHOR STUDIED THE FEDERAL AND STATE-OF-GEORGIA STATUTES APPLICABLE TO THE PROTECTION AND MANAGEMENT OF GROUNDWATER RESOURCES. MANY GAPS WERE FOUND, AND AS THE USE OF GROUNDWATER INCREASES IN HUMID AREAS, THE NEED FOR FAIR POLICIES AND LAWS ALSO INCREASES. THE AUTHOR'S RECOMMENDATIONS INCLUDE IMPLEMENTATION OF A FEDERAL GROUNDWATER STRATEGY, STATE PROTECTION OF GROUNDWATER QUALITY, AND A STATEWIDE USE PERMIT SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009284

PUBLICATION DATE: JUN 83

TITLE: PROTECTING WATER SUPPLY AQUIFERS IN AREAS USING DEEPWELL WASTEWATER DISPOSAL.

PERSONAL AUTHOR: GARCIA-BENCOCHEA, J. I.

DESCRIPTOR: *AQUIFERS; CONSTRUCTION; *DEEP WELL INJECTION; ENGINEERING; *FLORIDA; *GROUNDWATER; GUIDELINES; *HYDROLOGY; OPERATIONS (WASTEWATER); *WASTEWATER; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY; *WELLS

DESCRIPTIVE NOTE: 288-291P.

ABSTRACT: DEEP-WELL INJECTION OF TREATED WASTEWATER IS A COST-EFFECTIVE MEANS OF DISPOSAL WHERE GEOHYDROLOGIC CONDITIONS ALLOW THE PRACTICE AND IF MEASURES ARE TAKEN TO PREVENT DETERIORATION OF FRESH GROUNDWATER SUPPLIES. IN THE STATE OF FLORIDA, MANY DEEP AQUIFERS CAN BE USED FOR THIS PURPOSE WITHOUT AFFECTING THE QUALITY OF THE MORE SHALLOW GROUNDWATER USED FOR POTABLE SUPPLIES. THE AUTHOR DESCRIBES GOOD ENGINEERING PRACTICE DURING THE CONSTRUCTION OF INJECTION WELLS, THE MAINTENANCE OF SUCH WELLS, AND THE MONITORING PROCEDURES THAT SHOULD BE USED AFTER ULTIMATE ABANDONMENT OF THE WELLS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009285

PUBLICATION DATE: JUN 83

TITLE: CONTAMINATED GROUNDWATER TREATABILITY--A CASE STUDY.

PERSONAL AUTHOR: STOVER, ENOS L.; KINCANNON, DON F.

DESCRIPTOR: *CASE STUDIES; *CONTAMINATION; *GROUNDWATER; *HAZARDOUS MATERIALS; METALS; ORGANIC COMPOUNDS; *RESEARCH REPORTS; *TECHNOLOGICAL ADVANCEMENTS; *TOXIC SUBSTANCES; *WASTE DISPOSAL; WATER QUALITY; WATER RESOURCES; *WATER TREATMENT; WELLS

DESCRIPTIVE NOTE: 292-298P.

ABSTRACT: HEAVY METALS, VOLATILE ORGANICS, AND EXTRACTABLE ORGANICS WERE DETECTED IN WATER FROM WELLS LOCATED NEAR AN UNAPPROVED HAZARDOUS WASTE DISPOSAL SITE. AS PART OF A PROGRAM TO CLEAN UP THE DUMP SITE, TREATABILITY STUDIES WERE CONDUCTED PRIOR TO DEVELOPMENT OF THE PRELIMINARY DESIGN FOR A GROUNDWATER TREATMENT FACILITY. THESE STUDIES, WHICH

EVALUATED CHEMICAL PRECIPITATION, AIR STRIPPING, STEAM STRIPPING, ACTIVATED CARBON ADSORPTION, AND BIOLOGICAL TREATMENT, ARE DESCRIBED, ALONG WITH SOME OF THE RESULTS OBTAINED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009286

PUBLICATION DATE: JUN 83

TITLE: THE CHEMISTRY OF REDUCED SULFUR SPECIES AND THEIR REMOVAL FROM GROUNDWATER SUPPLIES.

PERSONAL AUTHOR: DOHNALEK, DAVID A.; FITZPATRICK, JOSEPH A.

DESCRIPTOR: *CHEMICALS; COST EFFECTIVENESS; *GROUNDWATER; *LABORATORY TESTS; *OPERATIONS (WATER); *RESEARCH; *SULFIDES; *SULFUR COMPOUNDS; WATER QUALITY; *WATER

DESCRIPTIVE NOTE: 298-308P.

ABSTRACT: FOLLOWING A DETAILED DISCUSSION OF THE AQUEOUS CHEMISTRY OF SULFUR COMPOUNDS, THE AUTHORS REVIEW THE RESULTS OF LABORATORY EXPERIMENTS IN WHICH VARIOUS METHODS OF REMOVING SULFIDE FROM GROUNDWATER WERE EVALUATED. THESE METHODS INCLUDED PRECIPITATION, AERATION, CATALYTIC AIR OXIDATION, AND OXIDATION BY PEROXIDE, PERMANGANATE, AND FERRATE. CERTAIN PROCESS PARAMETERS - AERATION RATE, CHEMICAL DOSAGE, RECYCLED SOLIDS LEVEL, PH, DETENTION TIME - WERE VARIED TO ASSESS THEIR EFFECTS ON SULFIDE REMOVAL. A BRIEF ECONOMIC ANALYSIS SHOWED FE(II) TO BE COST-EFFECTIVE FOR REMOVING SULFIDE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009287

PUBLICATION DATE: JUN 83

TITLE: RELATIONSHIP OF BACTERIAL COUNTS WITH TURBIDITY AND FREE CHLORINE IN TWO DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: REILLY, J. KEVIN; KIPPIN, JOYCE S.

DESCRIPTOR: *BACTERIA; *CHLORINE; COLIFORMS; *DRINKING WATER; *MICROBIOLOGY; *RESEARCH REPORTS; TURBIDITY; *WATER TREATMENT; *WATER DISTRIBUTION; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 309-312P.

ABSTRACT: THE AUTHORS OF THIS ARTICLE DESCRIBE THE MICROBIOLOGIC CHARACTERISTICS OF WATER SAMPLES TAKEN FROM TWO DISTRIBUTION SYSTEMS. THE VARIETY OF ORGANISMS ISOLATED SUGGESTS THAT THESE ORGANISMS HAD ESTABLISHED AN ECOSYSTEM WITHIN THOSE PIPE NETWORKS. IN MOST CASES THE DENSITIES OF STANDARD PLATE COUNT AND COLIFORM BACTERIA WERE INDEPENDENT OF EACH OTHER, TURBIDITY, AND FREE RESIDUAL CHLORINE. THE AUTHORS ALSO DISCUSS THE IMPORTANCE OF ENCAPSULATION FOR ORGANISMS IN THE MICROBIAL ECOSYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009288

PUBLICATION DATE: JUN 83

TITLE: DETERIORATION OF WATER QUALITY IN LARGE DISTRIBUTION RESERVOIRS (OPEN RESERVOIRS).

DESCRIPTOR: *CASE STUDIES; *DRINKING WATER; *ENVIRONMENTAL IMPACTS; *MONITORING; *RESEARCH REPORTS; *RESERVOIRS; *WATER SUPPLY; WATER TREATMENT; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 313-318P.

ABSTRACT: AN UNCOVERED, FINISHED-WATER RESERVOIR IS RECOGNIZED AS A WEAK LINK IN THE PROTECTION OF DRINKING WATER BEFORE ITS DELIVERY TO CUSTOMERS. THIS REPORT DESCRIBES EFFORTS BY THREE WATER PURVEYORS TO MONITOR THE QUALITY OF WATER IN OPEN DISTRIBUTION RESERVOIRS WITHIN THEIR SYSTEMS. THE RESULTS OF THEIR INDIVIDUAL MONITORING PROGRAMS ARE DISCUSSED AND COVER VARIOUS ASPECTS OF WATER QUALITY, SUCH AS PHYSICAL CHARACTERISTICS (COLOR, TEMPERATURE, TURBIDITY), METAL CONSTITUENTS, NONMETAL INORGANIC CONSTITUENTS, ORGANIC CONSTITUENTS, AND BIOLOGICAL ORGANISMS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009289

PUBLICATION DATE: JUN 83

TITLE: NEW SOLUTION TO AN OLD PROBLEM.

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; *EQUIPMENT; *LINESTOPPING; *MAINTENANCE; *PIPES (WATER); *ECONOLOGICAL ADVANCEMENTS; TECHNOLOGY; VALVES; *WATER DISTRIBUTION; WATER SUPPLY

DESCRIPTIVE NOTE: 34-36NEWSP.

ABSTRACT: THIS ARTICLE DESCRIBES THE SUCCESSFUL USE OF A NEW LINESTOPPING TECHNOLOGY THAT HAS SOLVED MANY OF THE PROBLEMS ASSOCIATED WITH REPAIRING OR REPLACING VALVES AND HYDRANTS IN AN OLD DISTRIBUTION SYSTEM. THE TECHNIQUE, WHICH USES A HYDRAULIC STOPPER, OFFERS LOW EQUIPMENT COSTS, LIGHTWEIGHT EQUIPMENT, AND LESS REPAIR TIME.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N6

IRIS ACCESSION NUMBER: EW009290
PUBLICATION DATE: 76

TITLE: DETERMINATION OF ODORS IN DRINKING WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *ODORS; *POSTSECONDARY EDUCATION; *VIDEO CASSETTES; *WATER

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 14 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: EXPLAINS A SIMPLE AND INEXPENSIVE PROCEDURE FOR DETERMINING THE ODOR OF WATER, AS RECOMMENDED IN "STANDARD METHODS FOR EXAMINATION OF WATER & WASTES". SHOWS THE OPERATOR HOW TO EXPRESS THE FINDINGS AS THE THRESHOLD ODOR NUMBER.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009303

PUBLICATION DATE: MAY 83

TITLE: WHEN OPEN TAPS ONLY DRIP.

PERSONAL AUTHOR: TRIM, DONALD R.

DESCRIPTOR: *DRINKING WATER; *FACILITIES; *MICHIGAN; *OPERATIONS (WATER); *WATER PRESSURE; *WATER TREATMENT

DESCRIPTIVE NOTE: 60-62P.

ABSTRACT: NEW WELLS, PUMP STATION AND RESERVOIR SOLVED LOW PRESSURE PROBLEMS IN A DISTRIBUTION ZONE IN AN AREA IN MICHIGAN.

AVAILABILITY: PUBLIC WORKS; V114 N6

IRIS ACCESSION NUMBER: EW009304

PUBLICATION DATE: JUN 83

TITLE: TELEMETRY FOR MONITORING AND CONTROLLING WASTEWATER COLLECTION SYSTEMS.

PERSONAL AUTHOR: VIVONA, MORRIS A.; GRAUPMANN, ROD W.

DESCRIPTOR: AUTOMATION; *COMPUTER APPLICATIONS; DIGITAL SYSTEMS; *FACILITIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PUMPING STATIONS; *TELEMETRY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 69-73P.

ABSTRACT: PRESENTED IS AN OVERVIEW OF TELEMETRY METHODS AND THEIR APPLICATION TO CENTRALIZED CONTROL OF REMOTE PUMPING STATIONS FOR WASTEWATER.

AVAILABILITY: PUBLIC WORKS; V114 N6

IRIS ACCESSION NUMBER: EW009305

PUBLICATION DATE: JUN 83

TITLE: TWENTY MILES OF MAJOR INTERCEPTOR DESIGNED AND BUILT IN TWO YEARS.

PERSONAL AUTHOR: BRUFLAT, STEVE; WASBOTTEN, THOMAS P.

DESCRIPTOR: *ARIZONA; *CONSTRUCTION; *DESIGN; *FACILITIES; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 76-78P.

ABSTRACT: THIS ARTICLE DESCRIBES THE DESIGN AND CONSTRUCTION OF A MAJOR WASTEWATER COLLECTION LINE IN THE PHOENIX AREA.

AVAILABILITY: PUBLIC WORKS; V114 N6

IRIS ACCESSION NUMBER: EW009306

PUBLICATION DATE: JUN 83

TITLE: A WATER METER RETROFIT PROGRAM.

PERSONAL AUTHOR: ROGERS, TODD B.

DESCRIPTOR: *COSTS; *EQUIPMENT; *EQUIPMENT INSTALLATION; *MANAGEMENT; *MAINTENANCE; *METERS; *RECOMMENDATIONS; *RETROFITTING; *WATER METERS; *WATER SUPPLY

DESCRIPTIVE NOTE: 79-80P.

ABSTRACT: DESCRIBED ARE A CITY'S EXPERIENCE WITH A LARGE SCALE METER INSTALLATION PROGRAM. A NUMBER OF PROBLEMS WERE ENCOUNTERED; SEVERAL OF THESE PROBLEMS ARE DISCUSSED.

AVAILABILITY: PUBLIC WORKS; V114 N6

IRIS ACCESSION NUMBER: EW009307

PUBLICATION DATE: JUN 83

TITLE: WATER RATES: DO THEY REFLECT COSTS?

PERSONAL AUTHOR: COURCHAINE, CLETUS L.

DESCRIPTOR: CONSTRUCTION; *COSTS; *ECONOMICS; *DRINKING WATER; FACILITIES; *MICHIGAN; *OPERATIONS (WATER); *WATER RATES; *WATER TREATMENT; *WATER SUPPLY; *WATER SOURCES

DESCRIPTIVE NOTE: 86-88P.

ABSTRACT: PRESENTED IS AN EXAMINATION OF THE FACTORS THAT INFLUENCE WATER RATES IN A LIGHTLY POPULATED, NON-INDUSTRIAL

AREA.
AVAILABILITY: PUBLIC WORKS; V114 N6

IRIS ACCESSION NUMBER: EW009308

PUBLICATION DATE: MAY 83

TITLE: A SYNOPTIC REVIEW OF SIGNIFICANT TREATMENT EFFECTS ON CONSENT DECREE PRIORITY POLLUTANTS.

PERSONAL AUTHOR: TIERNAN, J. E.

DESCRIPTOR: *CARCINOGENS; *CONSENT DECREE POLLUTANTS; *MUTAGENS; *POLLUTION; *PRIORITY POLLUTANTS; *RECOMMENDATIONS; *TERATOGENS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 276-282P.

ABSTRACT: AN EXTENSIVE REVIEW OF THE LITERATURE WAS CONDUCTED TO DETERMINE TREATMENT PROCESS ALTERNATIVES TO CONVENTIONAL SECONDARY TREATMENT AND WHICH HAVE THE MOST SIGNIFICANT EFFECTS ON CONCENTRATIONS OF THE CONSENT DECREE PRIORITY POLLUTANTS IN WATER AND WASTEWATER. FIVE TREATMENT PROCESSES WHICH AFFECTED THE GREATEST NUMBER AND CONCENTRATION OF THESE POLLUTANTS WERE SELECTED FOR SUMMARIZING. RESULTS OF THE REVIEW ARE LISTED IN TABULAR FORM ACCORDING TO CHEMICAL CATEGORY, REMOVAL EFFICIENCY, AND SPECIFIC POLLUTANT REMOVED OR INCREASED.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N6

IRIS ACCESSION NUMBER: EW009309

PUBLICATION DATE: MAY 83

TITLE: MERCURY, A HAZARDOUS WASTE PROBLEM.

PERSONAL AUTHOR: WEBER, JOYCE

DESCRIPTOR: ENVIRONMENTAL EFFECTS; HISTORY; *MERCURY; PUBLIC HEALTH; *TOXIC SUBSTANCES; *WASTE DISPOSAL; *WASTE TREATMENT

DESCRIPTIVE NOTE: 284-287P.

ABSTRACT: THIS ARTICLE BRIEFLY DESCRIBES MERCURY INCLUDING SOME HISTORY, USES, EFFECTS ON HUMANS AND WILDLIFE, SOURCES OF CONTAMINATION, DISPOSAL METHODS, AND TECHNIQUES FOR TREATING WASTES.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N6

IRIS ACCESSION NUMBER: EW009310
PUBLICATION DATE: MAY 83

TITLE: ENVIRONMENTAL TOXICOLOGY--PHYSICAL-CHEMICAL PARAMETERS.

PERSONAL AUTHOR: REIMERS, ROBERT S.; ANDERSON, ANN C.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *CHEMICAL STABILITY; *CHEMICAL REACTIONS; *ENVIRONMENTAL IMPACTS; *HAZARDOUS WASTES; *LABORATORY PROCEDURES; *SOLUBILITY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 288-290P.

ABSTRACT: THIS PAPER REVIEWS THE CHEMICAL CHARACTERISTICS OF EXOGENOUS COMPOUNDS AND THE PHYSICAL-CHEMICAL CHANGES IN THE RECEIVING ENVIRONMENT WHICH MUST BE EXAMINED TO DETERMINE THE FATE OF TOXICANTS IN THE ENVIRONMENT.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N6

IRIS ACCESSION NUMBER: EW009311

PUBLICATION DATE: JUN 83

TITLE: THE TRICKLING FILTER FINDS A NEW PARTNER.

PERSONAL AUTHOR: FEDOTOFF, ROY C.

DESCRIPTOR: *FACILITIES; *FILTERS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 28-31,52P.

ABSTRACT: AFTER FOUR YEARS OF STUDY AND EVALUATION AT THE PILOT- AND FULL-SCALE LEVEL, THE TRICKLING FILTER/SOLIDS CONTACT WASTEWATER TREATMENT PROCESS HAS CLEARLY DEMONSTRATED ITS POTENTIAL FOR THE FUTURE. DESCRIBED ARE THE DEVELOPMENT OF THE PROCESS AND SOME PLANT EXPERIENCES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N6

IRIS ACCESSION NUMBER: EW009312

PUBLICATION DATE: JUN 83

TITLE: BUILDING EXPERIENCE IN CENTRIFUGE DEWATERING.

DESCRIPTOR: *CASE STUDIES; *CENTRIFUGES; *DEWATERING; *EQUIPMENT; *GEORGIA; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32,36P.

ABSTRACT: CENTRIFUGES PLAY A SIGNIFICANT ROLE IN THE SOLIDS AND SLUDGE HANDLING OPERATIONS CARRIED OUT IN ATLANTA'S WASTEWATER TREATMENT PLANTS. SOME EXPERIENCES AND CURRENT

OPERATIONS ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N6

IRIS ACCESSION NUMBER: EW009313

PUBLICATION DATE: JUN 83

TITLE: WHAT YOU SHOULD KNOW ABOUT FLOWMETERS.

PERSONAL AUTHOR: DEAN, CHARLES W.

DESCRIPTOR: *EQUIPMENT; *EQUIPMENT NEEDS; *FLOWMETERS; *FLOW MEASUREMENT; *MONITORING; *MEASUREMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER)

DESCRIPTIVE NOTE: 38-40P.

ABSTRACT: FLOW MEASURING TECHNOLOGY HAS ADVANCED APPRECIABLY IN RECENT YEARS; HOWEVER, THE USER OR DESIGNER MUST BE AWARE OF THE LIMITATIONS OF DIFFERENT BREEDS. DESCRIBED ARE A NUMBER OF APPLICATIONS AND THE CHARACTERISTICS OF EQUIPMENT NEEDED.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N6

IRIS ACCESSION NUMBER: EW009314

PUBLICATION DATE: JUN 83

TITLE: REALISM IS THE KEYSTONE TO WISE INSTRUMENTATION CHOICE.

PERSONAL AUTHOR: BABCOCK, RUSSELL H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUTOMATION; *COMPUTER APPLICATIONS; *INSTRUMENTATION; *MEASUREMENT; *MONITORING; *OPERATIONS (WASTEWATER); *PROCESS CONTROLS; *SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 42,46P.

ABSTRACT: REALISM, COMMON SENSE, AND AN UNDERSTANDING OF TRUE NEED GO HAND-IN-HAND WHEN DECISIONS HAVE TO BE MADE IN SELECTING PROCESS INSTRUMENTATION FOR WASTEWATER TREATMENT PLANTS. VARIABLES INVOLVED IN SELECTION ARE CONSIDERED.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N6

IRIS ACCESSION NUMBER: EW009315

PUBLICATION DATE: JUN 83

TITLE: PROTECTIVE PONDS SAVE ECORSE CREEK.

PERSONAL AUTHOR: TRIM, DONALD R.

DESCRIPTOR: *FACILITIES; *MICHIGAN; *PERFORMANCE

EVALUATION; *PONDS; *OPERATIONS (WASTEWATER); *RETENTION BASINS; *SEWAGE, *SEWER OVERFLOWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48,50,58P.

ABSTRACT: TWO LARGE RETENTION BASINS, ONE COVERED - AND INCORPORATING A JET AERATION SYSTEM - AND ONE OPEN, SOLVED SERIOUS COMBINED SEWER OVERFLOW PROBLEMS FOR SEVERAL MICHIGAN COMMUNITIES.

AVAILABILITY: WATER ENGINEERING 8 MANAGEMENT; V130 N6

IRIS ACCESSION NUMBER: EW009323

PUBLICATION DATE: JUL 82

TITLE: METHODS FOR ORGANIC CHEMICAL ANALYSIS OF MUNICIPAL AND INDUSTRIAL WASTEWATER - TEST METHODS.

PERSONAL AUTHOR: LONGBOTTOM, JAMES E.; LICHTENBERG, JAMES J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICALS; *GUIDES; INDUSTRIAL WASTES; *LABORATORY PROCEDURES; *MUNICIPAL WASTES; *ORGANIC CHEMICALS; POLLUTANTS; *TEST METHODS; *WASTEWATER ANALYSIS

DESCRIPTIVE NOTE: 161P.

ABSTRACT: THIS PUBLICATION CONTAINS THE TEST PROCEDURES FOR 15 ORGANIC CHEMICALS. EACH METHOD INCLUDES DISCUSSION OF SCOPE AND APPLICATION, SAFETY, APPARATUS AND MATERIALS, REAGENTS, CALIBRATION, QUALITY CONTROL, SAMPLING, CALCULATIONS, AND METHOD PERFORMANCE. THESE METHODS REPRESENT AN EFFORT TO PROVIDE PROCEDURES THAT ARE UNIFORM AND COST-EFFECTIVE FOR A WIDE CROSS-SECTION OF CHEMICAL COMPOUND CLASSES.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, 26 W. ST. CLAIR STREET, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009324

PUBLICATION DATE: MAR 83

TITLE: METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; DRINKING WATER; GUIDES; *LABORATORY PROCEDURES; *MANUALS; *MONITORING; *SAFE DRINKING WATER ACT; *TEST METHODS; *TEST PROCEDURES; *WASTEWATER ANALYSIS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 490P.

ABSTRACT: THIS MANUAL PROVIDES TEST PROCEDURES APPROVED FOR THE MONITORING OF WATER SUPPLIES, WASTE DISCHARGES, AND AMBIENT WATERS, UNDER THE SAFE DRINKING WATER ACT, THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM, AND AMBIENT

MONITORING REQUIREMENTS OF SECTION 106 AND 208 OF PUBLIC LAW 92-500. THE TEST METHODS HAVE BEEN SELECTED TO MEET THE NEEDS OF FEDERAL LEGISLATION AND TO PROVIDE GUIDANCE TO LABORATORIES ENGAGED IN THE PROTECTION OF HUMAN HEALTH AND THE AQUATIC ENVIRONMENT.

AVAILABILITY: US ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, 26 W. ST. CLAIR STREET, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009325

PUBLICATION DATE: SEP 78

TITLE: COMPUTER COST MODELS FOR POTABLE WATER TREATMENT PLANTS.

PERSONAL AUTHOR: GUTTMAN, DANIEL L.; CLARK, ROBERT M.

DESCRIPTOR: CHLORAMINATION; CHLORINATION; CHLORINE DIOXIDE; *COMPUTER PROGRAMS; *COMPUTERS; *COMPUTER SOFTWARE; *COSTS; ECONOMIC FACTORS; GRANULAR ACTIVATED CARBON; *MODELS; *OPERATIONS (WATER); OZONE; *POTABLE WATER; *RESEARCH REPORTS; *WATER SUPPLY; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 71P.

ABSTRACT: A SERIES OF COMPUTER PROGRAMS HAVE BEEN DEVELOPED WHICH CALCULATE COSTS FOR SPECIFIC UNIT TREATMENT PROCESSES USED IN WATER TREATMENT PLANTS. THE PROGRAMS CONTAINED IN THIS REPORT ARE AS FOLLOWS: CHLORINATION, CHLORINE DIOXIDE, CHLORAMINATION, OZONE AND GRAULAR ACTIVATED CARBON ADSORPTION. TABLES ARE PROVIDED WHICH DISPLAY INPUT AND OUTPUT VARIABLES, STANDARDIZED VALUES FOR VARIABLES, A KEY FOR VARIABLE INPUT, AND THE COSTS ASSOCIATED WITH FIVE DIFFERENT SIZED PLANTS, FOR ALL PROGRAMS. IN ADDITION, PROGRAM LISTINGS AND SAMPLE OUTPUTS FOR ALL PROGRAMS ARE CONTAINED IN AN APPENDIX. THE COSTS GENERATED BY THE PROGRAMS ARE CATAGORIZED AS CAPITAL AND O&M EXPENDITURES.

AVAILABILITY: MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, OFFICE OF RESEARCH AND DEVELOPMENT, U.S. ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009326

PUBLICATION DATE: AUG 80

TITLE: TREATED WATER DEMAND AND THE ECONOMICS OF REGIONALIZATION - VOLUME 1 THE RESIDENTIAL DEMAND FOR TREATED WATER.

PERSONAL AUTHOR: HELMS, BILLY P.; VALLERY, J. F.

DESCRIPTOR: *COSTS; *DATABASES; *DRINKING WATER; *ECONOMIC FACTORS; *PREDICTION; *RESIDENTIAL DEMAND; *WATER DEMAND; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 93P.

ABSTRACT: THIS TWO-VOLUME REPORT EXAMINES THE PRESENT AND FUTURE DEMANDS AND COSTS FOR RESIDENTIAL WATER IN VIEW OF THE NEW REQUIREMENTS FOR WATER QUALITY STANDARDS UNDER THE SAFE DRINKING WATER ACT OF 1974 (PL 92-523). VOLUME 1 INVESTIGATES THE DETERMINANTS OF RESIDENTIAL WATER DEMAND (INCLUDING WATER PRICE, FAMILY INCOME, AND APPLIANCE OWNERSHIP) AND DEVELOPS A METHODOLOGY BY WHICH UTILITIES CAN DETERMINE FUTURE CUSTOMER DEMAND. A DATA BASE HAS BEEN DEVELOPED, AND RESULTS OF THE ANALYSIS ARE GIVEN. THESE DATA CAN BE USED TO TEST MANY HYPOTHESES OTHER THAN THOSE EXAMINED IN THIS STUDY, AND THEY COULD BE A VALUABLE TOOL FOR FURTHER RESEARCH INTO THE HOUSEHOLD DEMAND FOR WATER. METHODS ARE DISCUSSED SUFFICIENTLY TO PROVIDE A POINT OF DEPARTURE FOR WATER UTILITIES THAT MAY WISH TO ANALYZE THEIR OWN DEMAND.

AVAILABILITY: MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, OFFICE OF RESEARCH AND DEVELOPMENT, US ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009327

PUBLICATION DATE: JUL 80

TITLE: WASTEWATER IN RECEIVING WATERS AT WATER SUPPLY ABSTRACTION POINTS.

PERSONAL AUTHOR: SWAYNE, MICHAEL D.; AND OTHERS

DESCRIPTOR: *MUNICIPALITIES; POLLUTION; *RESEARCH REPORTS; *RIVERS; *SURVEYS; *WASTEWATER DISCHARGES; WASTEWATER TREATMENT; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 199P.

ABSTRACT: THE PURPOSE OF THIS PROJECT WAS TO DETERMINE HOW MUCH WASTEWATER AND WASTEWATER-DERIVED MATERIAL FROM DISCHARGES IS PRESENT IN THE SURFACE WATER SUPPLIES OF U.S. CITIES WITH POPULATIONS GREATER THAN 25,000. THE RESULTS ARE TABULATED TO SHOW FOR EACH OF 1246 MUNICIPAL WATER SUPPLY UTILITIES, THE NUMBER OF UPSTREAM WASTEWATER DISCHARGERS BY TYPE, AN ESTIMATE OF CUMULATED WASTEWATER DISCHARGE FLOW, AND THE RATIO OF WASTEWATER FLOW TO STREAM OR RIVER FLOW.

AVAILABILITY: MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, OFFICE OF RESEARCH AND DEVELOPMENT, US ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009328

PUBLICATION DATE: JUL 80

TITLE: DEVELOPMENT AND APPLICATION OF A WATER SUPPLY COST ANALYSIS SYSTEM - VOLUME II.

PERSONAL AUTHOR: GILLEAN, JAMES I.; AND OTHERS

DESCRIPTOR: *COMPUTER SOFTWARE; *COMPUTER PROGRAMS; *COST ANALYSIS; *COSTS; *DRINKING WATER; *ECONOMIC FACTORS;

*PROGRAM DESCRIPTIONS; *RESEARCH REPORTS; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 351P.

ABSTRACT: THIS REPORT DESCRIBES A RESEARCH PROGRAM INITIATED BY THE DRINKING WATER RESEARCH DIVISION OF EPA TO DEVELOP STANDARDIZED TECHNIQUES FOR ANALYZING COSTS WITHIN A UTILITY ACCOUNTING FRAMEWORK. THIS VOLUME CONTAINS THE PROGRAMMING DOCUMENTATION AND OPERATING INSTRUCTIONS FOR THE COST ANALYSIS SYSTEM.

AVAILABILITY: MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, OFFICE OF RESEARCH AND DEVELOPMENT, US ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW009332

PUBLICATION DATE: JUN 83

TITLE: SYSTEMS ANALYSIS.

PERSONAL AUTHOR: RECKHOW, KENNETH H.

DESCRIPTOR: ASSESSMENT; *LITERATURE REVIEWS; *MANAGEMENT; MODELING; *MONITORING; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *STATE-OF-THE-ART REVIEWS; *SYSTEMS ANALYSIS; WASTEWATER TREATMENT; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 546-549P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW ISSUE (EW 7973). A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR THE VARIOUS TOPICS RELATING TO SYSTEMS ANALYSIS AND WATER RESOURCES. TOPICS ADDRESSED INCLUDE WATER QUALITY MODELING AND ASSESSMENTS, WATER QUALITY MANAGEMENT, STORMWATER AND WASTEWATER MANAGEMENT, WATER QUALITY MONITORING, AND TOXIC CONTAMINANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009333

PUBLICATION DATE: JUN 83

TITLE: ECONOMICS.

PERSONAL AUTHOR: HITE, J. C.; CHILDS, N. W.

DESCRIPTOR: *COST-BENEFIT ANALYSIS; COSTS; *ENVIRONMENTAL POLICY; *ECONOMICS; *LITERATURE REVIEWS; *NONPOINT POLLUTION; *PUBLIC POLICY; *POLICIES; *WASTEWATER TREATMENT; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 549-551P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW ISSUE (EW 7974). A DETAILED

REVIEW OF THE LITERATURE IS PROVIDED FOR ECONOMICS AND WATER RESOURCES. SOME NEW APPROACHES TO ECONOMICS AND ENVIRONMENTAL POLICY ARE IDENTIFIED. OTHER PAPERS CONCERNED WITH TREATMENT COSTS, COST-BENEFIT ANALYSIS, AND NON-POINT POLLUTION ARE INCLUDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009334

PUBLICATION DATE: JUN 83

TITLE: LAW.

PERSONAL AUTHOR: COX, WILLIAM E.

DESCRIPTOR: *CLEAN WATER ACT; *DRINKING WATER; *ENVIRONMENTAL PROTECTION AGENCY; *HAZARDOUS SUBSTANCES; *LEGAL ASPECTS; *LEGISLATION; *LITERATURE REVIEWS; *POLLUTION CONTROL; *OPERATIONS (WASTEWATER); *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 551-554P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW ISSUE (EW 7975). A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO THE LEGAL ASPECTS OF POLLUTION CONTROL AND WATER QUALITY. TOPICS ADDRESSED INCLUDE CHANGES IN THE CLEAN WATER ACT, JUDICIAL INTERPRETATION OF THE CLEAN WATER ACT, LAND APPLICATION OF MUNICIPAL WASTEWATER, POLLUTION BY HAZARDOUS SUBSTANCES, MARINE POLLUTION, AND RELATIONSHIPS BETWEEN WATER QUALITY CONTROL AND WATER ALLOCATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009335

PUBLICATION DATE: JUN 83

TITLE: INORGANICS.

PERSONAL AUTHOR: POLCYN, DANIEL S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *DATA ANALYSIS; *INORGANIC COMPOUNDS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *COMPUTER APPLICATIONS; *METALS; *SAMPLING; *TRACE METALS; *WATER QUALITY

DESCRIPTIVE NOTE: 555-573P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7976). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO INORGANIC SUBSTANCES. TOPICS COVERED INCLUDE COMPUTERS IN ANALYSIS, DATA ANALYSIS AND TREATMENT, TRACE ANALYSIS, SAMPLING, PRECONCENTRATION OF TRACE METALS, AND DETERMINATION OF METAL SPECIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009336

PUBLICATION DATE: JUN 83

TITLE: WATER CHARACTERISTICS.

PERSONAL AUTHOR: BANDY, JOHN T.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; COLOR; *LITERATURE REVIEWS; RADIOACTIVITY; *RESEARCH REPORTS; SEDIMENTS; SUSPENDED SOLIDS; *WATER CHARACTERISTICS; *WATER QUALITY

DESCRIPTIVE NOTE: 573-577P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7977). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO WATER CHARACTERISTICS. TOPICS INCLUDED ARE ACID RAIN, WATER QUALITY, SEDIMENTS, OPTICAL PROPERTIES, RADIOACTIVITY, ACIDITY, AND ALKALINITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009337

PUBLICATION DATE: JUN 83

TITLE: ORGANICS.

PERSONAL AUTHOR: ADAMS, V. DEAN; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; DETERGENTS; *HYDROCARBONS; *LITERATURE REVIEWS; *ORGANIC COMPOUNDS; PESTICIDES; *RESEARCH REPORTS; SURFACTANTS; *WATER; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 577-598P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7978). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO ORGANIC COMPOUNDS. TOPICS ADDRESSED INCLUDE TOTAL ORGANIC DETERMINATION, DETERGENTS, ALIPHATIC AND AROMATIC HYDROCARBONS, PESTICIDES, CHLORINATED HYDROCARBONS, AND ORGANICS IN WATER AND WASTEWATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009338

PUBLICATION DATE: JUN 83

TITLE: PHYSICAL AND CHEMICAL METHODS.

PERSONAL AUTHOR: PETERS, ROBERT W.; AND OTHERS

DESCRIPTOR: ADSORPTION; *CHEMICAL TREATMENT; COAGULATION; ION EXCHANGE; *LITERATURE REVIEWS; MEMBRANE PROCESSES; *OPERATIONS (WASTEWATER); OXIDATIVE PROCESSES; *PHYSICAL TREATMENT; *RESEARCH REPORTS; SOLIDS SEPARATION; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 599-612P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7980). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO PHYSICAL AND CHEMICAL METHODS OF WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE PROCESS TECHNOLOGY, MIXING, FLUID FLOW, PRECIPITATION, COAGULATION, SOLID-LIQUID SEPARATION, ADSORPTION, ION EXCHANGE, SEPARATION PROCESSES, CORROSION CONTROL, OXIDATIVE PROCESSES, AND MEMBRANE PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009339

PUBLICATION DATE: JUN 83

TITLE: BIOLOGICAL FILTERS.

PERSONAL AUTHOR: SWITZENBAUM, M. S.; PAUSE, S. M.

DESCRIPTOR: ANAEROBIC FILTERS; *BIOLOGICAL FILTERS; *EQUIPMENT; *FILTERS; *FILTRATION; FIXED FILM PROCESSES; FLUIDIZED BED REACTORS; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; ROTATING BIOLOGICAL CONTACTORS; TRICKLING FILTERS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 612-615P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7981). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO BIOLOGICAL FILTERS IN WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE ROTATING BIOLOGICAL CONTACTORS, TRICKLING FILTERS, BED REACTORS, FILM CHARACTERISTICS, FIXED FILM PROCESSES, AND ANAEROBIC AND ANOXIC FIXED-FILM SYSTEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009340

PUBLICATION DATE: JUN 83

TITLE: ACTIVATED SLUDGE.

PERSONAL AUTHOR: SHERRARD, JOSEPH H.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; DESIGN; INDUSTRIAL WASTES; INSTRUMENTATION; *LITERATURE REVIEWS; MODELING; NITROGEN;

PROCESS CONTROL; OXYGEN UPTAKE; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 615-622P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7982). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO ACTIVATED SLUDGE. TOPICS ADDRESSED INCLUDE PROCESS MODELING, PROCESS RESEARCH, DESIGN AND PERFORMANCE, PROCESS CONTROL, INDUSTRIAL WASTEWATERS, NITROGEN METABOLISM, SLUDGE CHARACTERISTICS, AND OXYGEN UPTAKE AND OXYGEN TRANSFER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009341

PUBLICATION DATE: JUN 83

TITLE: LAGOONS AND OXIDATION PONDS.

PERSONAL AUTHOR: GEORGE, DENNIS B.

DESCRIPTOR: *DESIGN; *FACILITIES; *LAGOONS; *LITERATURE REVIEWS; MODELS; *OXIDATION PONDS; *PERFORMANCE EVALUATION; PROCESS CONTROL; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 622-623P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7983). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO LAGOONS AND OXIDATION PONDS. TOPICS ADDRESSED INCLUDE PROCESS DESIGN, PROCESS PERFORMANCE AND BIOLOGY, UPGRADING OF LAGOONS, AND PROCESS MODELS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009342

PUBLICATION DATE: JUN 83

TITLE: ANAEROBIC PROCESSES.

PERSONAL AUTHOR: FANNIN, KERBY F.; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; ECONOMIC FACTORS; ENERGY; *LITERATURE REVIEWS; MICROBIOLOGY; *OPERATIONS (WASTEWATER); PERFORMANCE EVALUATION; PROCESS DESCRIPTIONS; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 623-632P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1972 LITERATURE REVIEW (EW 7984). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO ANAEROBIC PROCESSES. TOPICS ADDRESSED INCLUDE MICROBIOLOGY, PROCESS STABILITY, PROCESS OPTIMIZATION, ENERGY AND ECONOMIC ASSESSMENT, AND PROCESS APPLICATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009343

PUBLICATION DATE: JUN 83

TITLE: DENITRIFICATION.

PERSONAL AUTHOR: PRAKASAM, T. B. S.

DESCRIPTOR: *DENITRIFICATION; EQUIPMENT; *LITERATURE REVIEWS; MICROBIOLOGY; *RESEARCH REPORTS; SLURRY PROCESSES; *SOILS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 632-637P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7985). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO DENITIRIFICATION. TOPICS ADDRESSED INCLUDE WATER AND SOIL SYSTEMS, SLURRY SYSTEMS, AND ATTACHED GROWTH SYSTEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009344

PUBLICATION DATE: JUN 83

TITLE: SLUDGE TREATMENT, UTILIZATION, AND DISPOSAL.

PERSONAL AUTHOR: VESILIND, AARNE

DESCRIPTOR: *DEWATERING; *INCINERATION; *LITERATURE REVIEWS; *RESEARCH REPORTS; *SLUDGE; *SLUDGE STABILIZATION; *SLUDGE TREATMENT; *SLUDGE UTILIZATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 637-642P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7986). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO SLUDGE TREATMENT, UTILIZATION, AND DISPOSAL. TOPICS ADDRESSED INCLUDE MANAGEMENT, SLUDGE PROPERTIES, SLUDGE TRANSPORT, THERMAL TREATMENT AND INCINERATION, THICKENING, DEWATERING, STABILIZATION, AND ULTIMATE DISPOSAL AND USE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009345

PUBLICATION DATE: JUN 83

TITLE: ONSITE ALTERNATIVES FOR TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: BOYLE, WILLIAM C.; OTIS, RICHARD J.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGIES; CASE STUDIES; *DESIGN; *FACILITIES; *LITERATURE REVIEWS; *MANAGEMENT; *ONSITE DISPOSAL; *ONSITE TREATMENT; *RESEARCH REPORTS; *SANITATION; *SEPTIC TANKS; *SOILS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 642-647P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7987). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO ONSITE ALTERNATIVES FOR TREATMENT AND DISPOSAL. TOPICS ADDRESSED INCLUDE ONSITE TREATMENT, SUBSURFACE DISPOSAL SYSTEMS, SEPTAGE MANAGEMENT, SANITATION IN DEVELOPING COUNTRIES, AND MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009346

PUBLICATION DATE: JUN 83

TITLE: OPTIMIZATION OF TREATMENT PLANT OPERATION.

PERSONAL AUTHOR: KUGELMAN, IRWIN J.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *INSTRUMENTATION; *LITERATURE REVIEWS; *MAINTENANCE; *MODELING; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; *RESEARCH REPORTS; *TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 647-650P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7988). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATED TO OPTIMIZATION OF TREATMENT PLANT OPERATION. TOPICS ADDRESSED INCLUDE PROCESS CONTROL AND MODELLING, INSTRUMENTATION AND COMPUTERS, AND OPERATIONS AND MAINTENANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009347

PUBLICATION DATE: JUN 83

TITLE: DISINFECTION.

PERSONAL AUTHOR: BOSSART, JOHN N.; MCCREARY, JOHN J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DISINFECTION; *INORGANIC COMPOUNDS; *LITERATURE REVIEWS; *MICROBIOLOGY; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *TRIHALOMETHANES; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 650-657P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7989). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATED TO DISINFECTION. TOPICS ADDRESSED INCLUDE MICROBIOLOGY, ANALYTICAL METHODS, INORGANIC TRANSFORMATIONS, FORMATION OF NON-VOLATILE COMPOUNDS, AND TRIHALOMETHANES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009348

PUBLICATION DATE: JUN 83

TITLE: WASTEWATER COLLECTION.

PERSONAL AUTHOR: DECARLO, FRANK; CHATTERJEE, SAMAR

DESCRIPTOR: *DESIGN; *CONSTRUCTION; *FACILITIES; *LITERATURE REVIEWS; *MAINTENANCE; *RESEARCH REPORTS; *REHABILITATION; *SAFETY; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 657-662P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW. A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO WASTEWATER COLLECTION. TOPICS ADDRESSED INCLUDE PLANNING, SEWER SURVEY AND REHABILITATION, DESIGN/CONSTRUCTION, SAFETY, WASTEWATER PUMPING, AND MAINTENANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009349

PUBLICATION DATE: JUN 83

TITLE: WATER RECLAMATION AND REUSE.

PERSONAL AUTHOR: HRUDEY, STEVE E.; SMITH, DANIEL W.

DESCRIPTOR: AGRICULTURE; *COMMERCIAL WATER USE; *DOMESTIC WATER USE; GROUNDWATER; *INDUSTRY; IRRIGATION; *LITERATURE REVIEWS; PUBLIC HEALTH; *RECYCLING; *RESEARCH REPORTS; TECHNOLOGY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER RECLAMATION; *WATER RESOURCES; *WATER REUSE

DESCRIPTIVE NOTE: 662-674P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7990). A REVIEW OF THE

LITERATURE IS PROVIDED FOR TOPICS RELATING TO WATER RECLAMATION AND REUSE. TOPICS ADDRESSED INCLUDE WATER RESOURCES PLANNING, AGRICULTURE AND IRRIGATION, GROUNDWATER RECHARGE, INDUSTRIAL WATER REUSE, MUNICIPAL AND DOMESTIC REUSE, RECLAIMED WATER QUALITY AND HEALTH, AND TECHNOLOGY DEVELOPMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009350

PUBLICATION DATE: JUN 83

TITLE: LAND APPLICATION OF WASTEWATERS.

PERSONAL AUTHOR: ABERNATHY, A. RAY

DESCRIPTOR: *CASE STUDIES; *LAND APPLICATION; *LITERATURE REVIEWS; *MICROBIOLOGY; *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 675-676P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7991). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO LAND APPLICATION OF WASTEWATERS. TOPICS ADDRESSED INCLUDE CASE STUDIES, MICROBIOLOGY, AND OTHER REFERENCES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009351

PUBLICATION DATE: JUN 83

TITLE: URBAN RUNOFF AND COMBINED SEWER OVERFLOW.

PERSONAL AUTHOR: MOFFA, PETER E.; AND OTHERS

DESCRIPTOR: *COMBINED SEWERS; DESIGN; *HYDROLOGY; *LITERATURE REVIEWS; *MANAGMMENT; *RESEARCH REPORTS; *SEWERS; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WASTEWATER COLLECTION; WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 676-679P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7992). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO URBAN RUNOFF AND COMBINED SEWER OVERFLOW. TOPICS ADDRESSED INCLUDE CHARACTERISTICS, HYDROLOGY, RECEIVING WATER, CONTROL, TREATMENT, AND MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009352

PUBLICATION DATE: JUN 83

TITLE: HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: CLARK, C. S.

DESCRIPTOR: *AQUACULTURE; *COMPOSTING; *HEALTH EFFECTS; *LAND APPLICATION; *LITERATURE REVIEWS; *PUBLIC HEALTH; *RESEARCH REPORTS; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 679-682P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7993). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL. TOPICS ADDRESSED INCLUDE WASTEWATER TREATMENT PLANTS AND COLLECTION SYSTEMS, LAND APPLICATION OF WASTEWATER AND SLUDGE, AND WASTEWATER REUSE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009353

PUBLICATION DATE: JUN 83

TITLE: MEAT-, FISH-, AND POULTRY-PROCESSING WASTES.

PERSONAL AUTHOR: LITCHFIELD, J. H.

DESCRIPTOR: *FISH; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MEAT; *POULTRY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 683-686P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7994). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MEAT, FISH, AND POULTRY PROCESSING WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009354

PUBLICATION DATE: JUN 83

TITLE: FRUIT-, VEGETABLE-, AND GRAIN-PROCESSING WASTES.

PERSONAL AUTHOR: MORRELL, ROBERT A.; SCHMIDT, HAROLD E., JR.

DESCRIPTOR: *AGRICULTURAL WASTES; *FRUITS; *GRAINS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *VEGETABLES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 686-688P.
ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7995). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO FRUIT, VEGETABLE, AND GRAIN PROCESSING WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009355

PUBLICATION DATE: JUN 83

TITLE: FERMENTATION INDUSTRY.

PERSONAL AUTHOR: CHIESA, STEVEN C.; MANNING, JOHN F., JR.

DESCRIPTOR: *FERMENTATION; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *WASTE DISPOSAL; *WASTE RECOVERY; *WASTEWATER RECOVERY; *WASTEWATER RECYCLING; *WASTEWATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 688-692P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7996). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO THE FERMENTATION INDUSTRY. TOPICS ADDRESSED INCLUDE BREWERIES, WINERIES, PHARMACEUTICALS, ALCOHOL FUEL PRODUCTION, AND DISTILLERIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009356

PUBLICATION DATE: JUN 83

TITLE: DAIRY WASTES.

PERSONAL AUTHOR: GROENEWOLD, JOHN C.

DESCRIPTOR: *AGRICULTURAL WASTES; *CASE STUDIES; *DAIRY WASTES; *INDUSTRIAL WASTES; *LAND APPLICATION; *LITERATURE REVIEWS; *RESEARCH REPORTS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WHEY DISPOSAL

DESCRIPTIVE NOTE: 692-693P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7997). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO DAIRY WASTES. TOPICS ADDRESSED INCLUDE CASE HISTORIES, WHEY DISPOSAL AND PROCESSING, AND RESEARCH.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009357
PUBLICATION DATE: JUN 83

TITLE: TEXTILE WASTES.

PERSONAL AUTHOR: JUDKINS, J. F., JR.

DESCRIPTOR: *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *TEXTILES; *WASTE DISPOSAL; *WASTE RECOVERY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 693-694P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7998). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO TEXTILE WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009358

PUBLICATION DATE: JUN 83

TITLE: PULP AND PAPER EFFLUENT MANAGEMENT.

PERSONAL AUTHOR: GOVE, GEORGE W.

DESCRIPTOR: BIOLOGICAL TREATMENT; *ECONOMICS; *EFFLUENTS; *FOREST PRODUCTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PAPER INDUSTRY; *PULP INDUSTRY; *RESEARCH REPORTS; *WASTE DISPOSAL; *WASTE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 694-701P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 7999). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO PULP AND PAPER EFFLUENT MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009359

PUBLICATION DATE: JUN 83

TITLE: COAL AND COAL MINE DRAINAGE.

PERSONAL AUTHOR: OLEM, HARVEY

DESCRIPTOR: *COAL; *COAL CLEANING; *COAL INDUSTRY; *COAL MINE DRAINAGE; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MINING; *POLLUTION CONTROL; *RESEARCH REPORTS; STORAGE; TRANSPORTATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 701-704P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8000). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO COAL AND COAL MINE DRAINAGE. TOPICS ADDRESSED INCLUDE COAL MINING, COAL CLEANING, AND COAL TRANSPORTATION AND STORAGE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009360

PUBLICATION DATE: JUN 83

TITLE: PETROLEUM PROCESSING AND SYNTHETIC FUELS.

PERSONAL AUTHOR: STOVER, ENOS L.; MCCARTNEY, DAVID E.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *EFFLUENTS; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *OIL WATER SEPARATION; *PETROLEUM; *RESEARCH REPORTS; *SYNTHETIC FUELS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 705-709P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8001 AND 8002). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO PETROLEUM PROCESSING AND SYNTHETIC FUELS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009361

PUBLICATION DATE: JUN 83

TITLE: POWER INDUSTRY WASTES.

PERSONAL AUTHOR: CHU, T. JULIAN; IWANSKI, MYRON I.

DESCRIPTOR: *ENERGY; FLUIDIZED-BED COMBUSTION; FOSSIL FUELS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; NUCLEAR POWER; *POWER PRODUCTION; *POWER INDUSTRY; REGULATIONS; *RESEARCH REPORTS; WASTE HEAT UTILIZATION; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 709-719P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8027). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO POWER INDUSTRY WASTES. TOPICS ADDRESSED INCLUDE ENVIRONMENTAL REGULATION, HYDROELECTRIC POWER PLANTS, FOSSIL-FUELED POWER PLANTS, NUCLEAR POWER PLANTS, FLUIDIZED BED COMBUSTION, AND WASTE HEAT UTILIZATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009362

PUBLICATION DATE: JUN 83

TITLE: STEEL INDUSTRY WASTES.

PERSONAL AUTHOR: CHUNG, N. K.; AND OTHERS

DESCRIPTOR: *COKE PRODUCTION; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; *PICKLING; *POLLUTION CONTROL; *RESEARCH REPORTS; *STEEL INDUSTRY; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 719-723P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8003). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO STEEL INDUSTRY WASTES. TOPICS ADDRESSED INCLUDE WASTEWATER REDUCTION AND RECYCLE, COKE PRODUCTION, HOT FORMING, AND PICKLING AND COATING OPERATIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009363

PUBLICATION DATE: JUN 83

TITLE: ELECTROPLATING AND CYANIDE WASTES.

PERSONAL AUTHOR: KNOCKE, WILLIAM R.; FITZGERALD, KIERA S.

DESCRIPTOR: *CYANIDE; *ELECTROPLATING; *HEAVY METALS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *POLLUTION CONTROL; *REGULATIONS; *RESEARCH REPORTS; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 723-726P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8004). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO ELECTROPLATING AND CYANIDE WASTES. TOPICS ADDRESSED INCLUDE REGULATIONS, TREATMENT AND RECOVERY TECHNIQUES, AND SOLIDS HANDLING AND DISPOSAL CONSIDERATIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009364

PUBLICATION DATE: JUN 83

TITLE: CHEMICALS AND ALLIED PRODUCTS.

PERSONAL AUTHOR: SIEGRIST, T. W.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CHEMICAL INDUSTRY; *CHEMICALS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *POLLUTION CONTROL; *RESEARCH REPORTS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 726-735P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8005). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO CHEMICALS AND ALLIED PRODUCTS. TOPICS ADDRESSED INCLUDE WASTEWATER TREATMENT BY PRODUCT TYPE, SOURCE TREATMENT, BIOLOGICAL TREATMENT, AND PHYSICAL/CHEMICAL TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009365

PUBLICATION DATE: JUN 83

TITLE: RADIOACTIVE WASTES.

PERSONAL AUTHOR: BOEGLY, WILLIAM J., JR.; ALEXANDER, HARRY J.

DESCRIPTOR: *INDUSTRIAL WASTES; *LITERATURE REVIEWS; MONITORING; NUCLEAR POWER; RADIOACTIVE MATERIALS; *RADIOACTIVE WASTES; *RESEARCH REPORTS; RISK ASSESSMENT; STORAGE; TRANSPORATTION; *WASTE DISPOSAL; *WASTE MANAGEMENT

DESCRIPTIVE NOTE: 735-745P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8023). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO RADIOACTIVE WASTES. TOPICS ADDRESSED INCLUDE ISOLATION OF WASTES, WASTE MANAGEMENT, STORAGE, ENVIRONMENTAL TRANSPORT, TRANSPORTATION, RISK ASSESSMENT, AND REMEDIAL ACTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009366

PUBLICATION DATE: JUN 83

TITLE: SOLID WASTES AND WATER QUALITY.

PERSONAL AUTHOR: BROWER, GEORGE R.; DAS, R. RAMKRISHNA

DESCRIPTOR: ENVIRONMENTAL IMPACTS; ENERGY; FACILITIES; GROUNDWATER; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *SOLID WASTES; *WASTE DISPOSAL; *WASTE MANAGEMENT; *WASTE TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 743-747P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8006). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO SOLID WASTES AND WATER QUALITY. TOPICS ADDRESSED INCLUDE WATER QUALITY, CHARACTERIZATION AND TREATMENT, ENERGY, AND HAZARDOUS WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009367

PUBLICATION DATE: JUN 83

TITLE: NON-POINT SOURCES.

PERSONAL AUTHOR: YOUNOS, T. M.; SMOLEN, M. D.

DESCRIPTOR: *LITERATURE REVIEWS; *MANAGEMENT; *MODELING; *MONITORING; *NONPOINT SOURCE POLLUTION; *POLLUTION CONTROL; *RESEARCH REVIEWS; *WATER QUALITY; *WATER POLLUTION; *WATERSHEDS

DESCRIPTIVE NOTE: 748-752P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8007). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO NON-POINT SOURCES. TOPICS ADDRESSED INCLUDE WATERSHED MONITORING, WATERSHED MODELING, AND WATERSHED MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009368

PUBLICATION DATE: JUN 83

TITLE: MIXING AND TRANSPORT.

PERSONAL AUTHOR: ROBERTS, PHILLIP J. W.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *ESTUARIES; *LAKES; *LITERATURE REVIEWS; *POLLUTION CONTROL; *RESEARCH REPORTS; *RIVERS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 752-757P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8008). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MIXING AND TRANSPORT. TOPICS ADDRESSED INCLUDE STREAMS AND RIVERS; LAKES, RESERVOIRS, AND COOLING PONDS; ESTUARIES, HARBORS, AND SALT MARSHES; COASTAL WATERS; JETS AND PLUMES; AND STRATIFIED FLUIDS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009369

PUBLICATION DATE: JUN 83

TITLE: EUTROPHICATION.

PERSONAL AUTHOR: MEDINE, ALLEN J.; ANDERSON, MICHAEL J.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *ECOLOGY; *EUTROPHICATION; *LAKES; *LITERATURE REVIEWS; *MANAGEMENT; *MODELING; *NUTRIENT LOADING; *POLLUTION CONTROL; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 757-764P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8009). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO EUTROPHICATION. TOPICS ADDRESSED INCLUDE NUTRIENT LOADING MODELS, EUTROPHICATION INDICATORS, EUTROPHICATION AND ECOSYSTEM MODELING, NUTRIENT SOURCES AND SINKS, INTERACTIONS (BIOLOGICAL, CHEMICAL, PHYSICAL), BIOASSAY AND LABORATORY STUDIES, AND LAKE MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009370

PUBLICATION DATE: JUN 83

TITLE: DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS.

PERSONAL AUTHOR: BOHAC, CHARLES E.; KIM, BYUNG R.

DESCRIPTOR: *DESTRATIFICATION; *DISSOLVED OXYGEN; *GAS MEASUREMENT; *GAS TRANSFER; *LITERATURE REVIEWS; *MODELING; *REAERATION; *RESEARCH REPORTS; *RESERVOIRS; *STREAMS; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 764-767P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8010). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS. TOPICS ADDRESSED INCLUDE WATER QUALITY MODELS, OXYGEN DEMAND AND RESPONSE TO WASTE LOADS, IMPOUNDMENT REAERATION AND DESTRATIFICATION, AND GAS TRANSFER AND MEASUREMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009371

PUBLICATION DATE: JUN 83

TITLE: MARINE AND ESTUARINE POLLUTION.

PERSONAL AUTHOR: REISH, DONALD J.; AND OTHERS

DESCRIPTOR: *DREDGING; *DUMPING; *EFFLUENTS; *ESTUARIES; *LITERATURE REVIEWS; *MARINE ENVIRONMENTS; *MICROBIOLOGY; *OCEANS; *OIL DRILLING; *OIL SPILLS; *PESTICIDES; *POLLUTION CONTROL; *RESEARCH REPORTS; *WASTE DISPOSAL; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 767-787P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8012). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MARINE AND ESTUARINE POLLUTION. TOPICS ADDRESSED INCLUDE PESTICIDES, RESIDUES, MICROBIOLOGY, SURVEYS, DISEASES AND ABNORMALITIES, DUMPING, DREDGING, MINED MATERIALS, AND OIL POLLUTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009372

PUBLICATION DATE: JUN 83

TITLE: BIOASSAYS--PROCEDURES AND RESULTS.

PERSONAL AUTHOR: MACIOROWSKI, A. F.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOASSAYS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MICROORGANISMS; *PUBLIC HEALTH; *RESEARCH REPORTS; *TESTING; *TOXIC SUBSTANCES; *WATER QUALITY; *WATER POLLUTION

DESCRIPTIVE NOTE: 801-816P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8014). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO BIOASSAYS. TOPICS ADDRESSED INCLUDE DESIGN AND INTERPRETATION, MICROORGANISMS, ALGAE AND OTHER PLANTS, INVERTEBRATES AND FISH, COMPARATIVE TESTING, AND HEALTH EFFECTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009373

PUBLICATION DATE: JUN 83

TITLE: BIOACCUMULATION AND TOXICITY OF HEAVY METALS AND RELATED TRACE ELEMENTS.

PERSONAL AUTHOR: MURPHY, CORNELIUS B., JR.; SPIEGEL, STUART J.

DESCRIPTOR: *BIOACCUMULATION; *BIOCONCENTRATION; *CHEMICALS; *DETOXIFICATION; *HEAVY METALS; *LITERATURE REVIEWS; *RESEARCH REPORTS; *TOXICITY; *TOXIC SUBSTANCES; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 816-822P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8015). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO BIOACCUMULATION AND TOXICITY OF HEAVY METALS AND RELATED TRACE ELEMENTS. TOPICS ADDRESSED INCLUDE HEAVY METALS, BIOCONCENTRATION, TOXICITY, DETOXIFICATION OF HEAVY METALS, AND APPLICATIONS OF HEAVY METAL TOXICITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009374

PUBLICATION DATE: JUN 83

TITLE: AQUATIC SEDIMENTS.

PERSONAL AUTHOR: DEPINTO, JOSEPH V.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENTS; *HEAVY METALS; *LITERATURE REVIEWS; *MODELING; *NUTRIENTS; *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *SAMPLING; *SEDIMENTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 822-829P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8016). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO AQUATIC SEDIMENTS. TOPICS ADDRESSED INCLUDE ANALYTICAL AND SAMPLING METHODS, HEAVY METALS, NUTRIENTS, BIOLOGICAL ACTIVITY, ORGANICS, AND MODELING AND SEDIMENT TRANSPORT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009375

PUBLICATION DATE: JUN 83

TITLE: EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES.

PERSONAL AUTHOR: BUIKEMA, A. L., JR.; AND OTHERS

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *AQUATIC ORGANISMS; *BIOLOGY; *ECOLOGY; *ENVIRONMENTAL IMPACTS; *INVERTEBRATES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 829-833P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8017). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES. TOPICS ADDRESSED INCLUDE METHODS, COMMUNITIES, CLADOCERA, AMPHIPODA, AQUATIC INSECTS, MOLLUSKS, WORMS, AND PROTOZOA.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009376

PUBLICATION DATE: JUN 83

TITLE: FRESHWATER MACROINVERTEBRATES.

PERSONAL AUTHOR: QUIGLEY, M. A.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *AQUATIC ORGANISMS; *ECOLOGY; *INVERTEBRATES; *LITERATURE REVIEWS; *MACROINVERTEBRATES; *ORGANIC WASTES; *RESEARCH REPORTS; *SAMPLING; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 833-840P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8018). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO FRESHWATER MACROINVERTEBRATES. TOPICS ADDRESSED INCLUDE INDEXES AND INDICATORS, ORGANIC AND OTHER WASTES, PHYSICAL ENVIRONMENTAL ALTERATIONS, DISTRIBUTION AND HABITAT REQUIREMENTS, FOOD AND FEEDING, PRODUCTION, PERIODICITY AND DRIFT, ANIMAL-SEDIMENT INTERACTIONS, AND METHODS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009377

PUBLICATION DATE: JUN 83

TITLE: EFFECTS OF POLLUTION ON FRESHWATER FISH AND AMPHIBIANS.

PERSONAL AUTHOR: PICKERING, QUENTIN H.; AND OTHERS

DESCRIPTOR: *AMPHIBIANS; *AQUATIC ORGANISMS; CHEMICALS; EFFLUENTS; *ENVIRONMENTAL IMPACTS; *FISH; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; METALS; MUNICIPAL WASTES; ORGANIC COMPOUNDS; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 840-863P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8019). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO EFFECTS OF POLLUTION ON FRESHWATER FISH AND AMPHIBIANS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009378

PUBLICATION DATE: JUN 83

TITLE: SUBSTRATE ASSOCIATED MICROFAUNA.

PERSONAL AUTHOR: BURTON, G. AL[illegible]

DESCRIPTOR: *ECOLOGY; *ECOLOGICAL FACTORS; *LITERATURE REVIEWS; *MICROFAUNA; *MICROBIOLOGY; *RESEARCH REPORTS; *TOXICITY; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 863-869P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8020). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO SUBSTRATE ASSOCIATED MICROFAUNA. TOPICS ADDRESSED INCLUDE METHODOLOGY, ECOLOGY, AND TOXICITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009379

PUBLICATION DATE: JUN 83

TITLE: MICROBIOLOGY OF WATER.

PERSONAL AUTHOR: GELDREICH, EDWIN E.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; ECOLOGY; ECOLOGICAL FACTORS; LAKES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REPORTS; RIVERS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 869-881P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8021). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MICROBIOLOGY OF WATER. TOPICS ADDRESSED INCLUDE MICROBIAL INDICATORS OF POLLUTION, MICROBIAL ECOLOGY WATER, MICROBIOLOGY OF RIVER SYSTEMS TO COASTAL WATERS AND MICROBIOLOGY OF NATURAL LAKES AND IMPOUNDMENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009380

PUBLICATION DATE: JUN 83

TITLE: MICROBIOLOGY: METHODOLOGY AND QUALITY ASSURANCE.

PERSONAL AUTHOR: BORDNER, ROBERT H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOASSAYS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MICROBIOLOGY; POLLUTION CONTROL; *QUALITY CONTROL; *RESEARCH REPORTS; SAMPLING; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 881-890P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8029). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MICROBIOLOGY METHODOLOGY AND QUALITY ASSURANCE. TOPICS ADDRESSED INCLUDE METHODS, ISOLATION AND ENUMERATION PROCEDURES, IDENTIFICATION SYSTEMS, RAPID METHODS, AND QUALITY ASSURANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009381

PUBLICATION DATE: JUN 83

TITLE: MICROBIOLOGY OF POTABLE WATER AND GROUNDWATER.

PERSONAL AUTHOR: REASONER, DONALD J.

DESCRIPTOR: *DRINKING WATER; *GROUNDWATER; *LITERATURE REVIEWS; *MICROBIOLOGY; *POTABLE WATER; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 891-895P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8022). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MICROBIOLOGY OF POTABLE WATER AND GROUNDWATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009382

PUBLICATION DATE: JUN 83

TITLE: MICROBIOLOGY: DETECTION AND OCCURRENCE OF BACTERIAL PATHOGENS.

PERSONAL AUTHOR: WETZLER, T. F.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANIMALS; *BACTERIA; *CONTAMINATION; *LITERATURE REVIEWS; *MICROBIOLOGY; *PATHOGENS; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 895-905P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8023). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO MICROBIOLOGY: DETECTION AND OCCURRENCE OF BACTERIAL PATHOGENS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009383

PUBLICATION DATE: JUN 83

TITLE: DISEASE OUTBREAKS CAUSED BY DRINKING WATER.

PERSONAL AUTHOR: DUFOUR, A. P.
DESCRIPTOR: *CONTAMINATION; *DISEASES; *DRINKING WATER; *EPIDEMIOLOGY; *HEALTH EFFECTS; *LITERATURE REVIEWS; *PUBLIC HEALTH; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 905-908P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1982 LITERATURE REVIEW (EW 8924). A REVIEW OF THE LITERATURE IS PROVIDED FOR TOPICS RELATING TO DISEASE OUTBREAKS CAUSED BY DRINKING WATER. TOPICS ADDRESSED INCLUDE CAMPYLOBACTER ENTERITIS, YERSINIA ENTERITIS, SHIGELLOSIS, CHOLERA, LEGIONELLOSIS, VIRAL GASTROENTERITIS, HEPATITIS A, AND TOXOPLASMOSIS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V55 N6

IRIS ACCESSION NUMBER: EW009336

TITLE: AMERICA'S WETLANDS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ENVIRONMENTAL IMPACTS; *ECOSYSTEMS; GROUNDWATER; *INSTRUCTIONAL MATERIALS; *POLLUTION CONTROL; SOIL EROSION; VALUES; *WETLANDS; WASTEWATER TREATMENT; *WILDLIFE

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00. 28 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: THIS BEAUTIFULLY PHOTOGRAPHED FILM (EW007427) TRANSFERRED TO VIDEOTAPE EXAMINES THE VALUES OF WETLAND ECOSYSTEMS INCLUDING FLOOD PROTECTION, HUNTING AND FISHING, NATURAL PURIFICATION OF WASTEWATER, THE REPLENISHMENT OF GROUNDWATER, AND THE CURBING OF SOIL EROSION. A WIDE VARIETY OF WILDLIFE HABITATS ARE SHOWN.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009387

PUBLICATION DATE: 83

TITLE: RAW WATER PREPARATION.

DESCRIPTOR: *CHEMICALS; *COAGULATION; *DRINKING WATER; *DIRECTORIES; *EQUIPMENT; *FACILITIES; *MANUFACTURERS; *OPERATIONS (WATER); *PACKAGE PLANTS; *SCREENS; *SEDIMENTATION; *WATER TREATMENT

DESCRIPTIVE NOTE: C2-C10P.

ABSTRACT: LISTED IN THIS SECTION ARE MANUFACTURERS FOR VARIOUS ASPECTS OF RAW WATER PREPARATION. INCLUDED ARE ITEMS RELATED TO INTAKES AND SCREENS, COAGULATION, SEDIMENTATION, AND PACKAGE PLANTS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009388

PUBLICATION DATE: 83

TITLE: FILTRATION.

DESCRIPTOR: *DRINKING WATER; *DIRECTORIES; *EQUIPMENT; *FACILITIES; *FILTRATION; *MANUFACTURERS; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: C10-C14P.

ABSTRACT: LISTED IN THIS SECTION ARE MANUFACTURERS FOR VARIOUS ASPECTS OF FILTRATION OF WATER. INCLUDED ARE ITEMS RELATED TO MICROSTRAINERS AND MICROSCREENS, CONVENTIONAL FILTRATION, COMPLETE PLANTS, AND DIATOMITE FILTERS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009389

PUBLICATION DATE: 83

TITLE: SOFTENING, IRON AND MANGANESE REMOVAL.

DESCRIPTOR: *DRINKING WATER; *DIRECTORIES; *EQUIPMENT; *FACILITIES; *IRON; *MANGENESE; *MANUFACTURERS; *OPERATIONS (WATER); *SOFTENING; *WATER TREATMENT

DESCRIPTIVE NOTE: C14-C19P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO SOFTENING, IRON, AND MANGANESE REMOVAL. INCLUDED ARE DISCUSSIONS OF LIMITING CONCENTRATIONS, SOFTENING, DESALTING TECHNIQUES, REMOVAL OF IRON AND MANGANESE, AND FLUORIDE ADJUSTMENT.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009390

PUBLICATION DATE: 83

TITLE: DISINFECTION, TASTE AND ODOR CONTROL.

DESCRIPTOR: *DISINFECTION; *DIRECTORIES; *DRINKING WATER; *EQUIPMENT; *FACILITIES; *MANUFACTURERS; *ODORS; *OPERATIONS (WATER); *TASTES; *WATER TREATMENT

DESCRIPTIVE NOTE: C19-C25P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO DISINFECTION, TASTE, AND ODOR CONTROL. INCLUDED ARE DISCUSSIONS OF DISINFECTION, TASTE AND ODOR CONTROL, AND AERATION AND DEAERATION.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009391

PUBLICATION DATE: 83

TITLE: MAINS AND SERVICES.

DESCRIPTOR: *DIRECTORIES; *DRINKING WATER; *EQUIPMENT; *FACILITIES; *MANUFACTURERS; *WATER MAINS; *OPERATIONS (WATER); *PIPES; *WATER DISTRIBUTION; *WATER PIPES

DESCRIPTIVE NOTE: C25-C35P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS. FOR VARIOUS ITEMS RELATED TO MAINS AND SERVICES. INCLUDED ARE DISCUSSIONS OF DUCTILE IRON MAINS, PLASTIC PIPE, STEEL PIPE, ASBESTOS-CEMENT PIPE, CONCRETE PRESSURE PIPE, SERVICES, CORPORATION AND CURB STOPS, AND PIPE HANDLING EQUIPMENT.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009392

PUBLICATION DATE: 83

TITLE: PUMPS AND MOTORS.

DESCRIPTOR: *DIRECTORIES; *DRINKING WATER; *EQUIPMENT; *MANUFACTURERS; *MOTORS; *OPERATIONS (WATER); *PUMPS; *WATER DISTRIBUTION; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: C35-C41P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO PUMPS AND MOTORS. INCLUDED ARE DISCUSSIONS OF CENTRIFUGAL PUMPS, DISPLACEMENT PUMPS, DEEP WELL PUMPS, PNEUMATIC SYSTEMS, ENGINES, AUTOMATIC OPERATION, AND SOLAR ENERGY.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009393

PUBLICATION DATE: 83

TITLE: VALVES AND HYDRANTS.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *HYDRANTS; *MANUFACTURERS; *OPERATIONS (WATER); *VALVES; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: C41-C47P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO VALVES AND HYDRANTS. DISCUSSIONS OF VALVES AND HYDRANTS ARE INCLUDED.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009394

PUBLICATION DATE: 83

TITLE: WATER STORAGE.

DESCRIPTOR: DIRECTORIES; DRINKING WATER; EQUIPMENT; MANUFACTURERS; MAINTENANCE; OPERATIONS (WATER); RESERVOIRS; WATER DISTRIBUTION; WATER SUPPLY; WATER STORAGE; WATER TREATMENT; WATER TANKS

DESCRIPTIVE NOTE: C47-C55P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO WATER STORAGE. INCLUDED ARE DISCUSSIONS OF ELEVATED STORAGE, GROUND STORAGE, COATING SYSTEMS, CATHODIC PROTECTION, CONCRETE TANKS, AUTOMATIC OPERATION, DEVELOPING GROUNDWATER, AND SURFACE RESERVOIRS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009395

PUBLICATION DATE: 83

TITLE: METERING, MONITORING AND QUALITY CONTROL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DIRECTORIES; *DRINKING WATER; *EQUIPMENT; *LABORATORY EQUIPMENT; *MANUFACTURERS; *METERS; *MONITORING; *OPERATIONS (WATER); *WATER METERS; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: C56-C68P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO METERING, MONITORING, AND QUALITY CONTROL. DISCUSSIONS RELATED TO METERING, MONITORING, AND QUALITY CONTROL ARE INCLUDED.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009396

PUBLICATION DATE: 83

TITLE: SYSTEM MAINTENANCE.

DESCRIPTOR: *CONTRACT OPERATIONS; *DIRECTORIES; *DRINKING WATER; *INSPECTION; *EQUIPMENT; *LEAKAGE; *MANUFACTURING; *MAINS; *OPERATIONS (WATER); *RESERVOIRS; *TRAINING; *WATER TREATMENT

DESCRIPTIVE NOTE: C68-C74P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND

MANUFACTURERS FOR VARIOUS ITEMS RELATED TO SYSTEM MAINTENANCE. INCLUDED ARE DISCUSSIONS OF LEAKAGE, INSTALLING CONNECTIONS, MAINTAINING MAIN CAPACITIES, RESERVOIRS AND WELLS, UNDERWATER INSPECTION, AND TRAINING AND CONTRACT OPERATION.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009397

PUBLICATION DATE: 83

TITLE: COLLECTION SYSTEMS.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *PIPES; *SEWERS; *SEWER PIPES; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: D2-D9P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO COLLECTION SYSTEMS. TOPICS DISCUSSED INCLUDE CLAY PIPE, CONCRETE PIPE, ASBESTOS-CEMENT PIPE, DUCTILE IRON PIPE, PLASTIC PIPE AND SEWER APPURTENANCES.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009398
PUBLICATION DATE: 33

TITLE: PUMPS AND VALVES.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *LIFT STATIONS; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *PUMPS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT; *VALVES

DESCRIPTIVE NOTE: D10-D17P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO PUMPS AND VALVES FOR WASTEWATER OPERATIONS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009399

PUBLICATION DATE: 83

TITLE: PRIMARY TREATMENT.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *PRIMARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D17-D25P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO PRIMARY WASTEWATER TREATMENT. TOPICS DISCUSSED INCLUDE SCREENING, GRIT COLLECTION, SETTLING TANKS, FLOTATION, FLOCCULATION, THICKENERS, AND FACTORY BUILT PLANTS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009400

PUBLICATION DATE: 83

TITLE: SECONDARY TREATMENT.

DESCRIPTOR: *ACTIVATED SLUDGE; *DIRECTORIES; *FACILITIES; *EQUIPMENT; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *OXIDATION PONDS; *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D25-D32P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO SECONDARY WASTEWATER TREATMENT. TOPICS DISCUSSED INCLUDE ACTIVATED SLUDGE AND OXIDATION PONDS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009401
PUBLICATION DATE: 83

TITLE: ADVANCED TREATMENT.

DESCRIPTOR: *ADVANCED TREATMENT; *DIRECTORIES; *FACILITIES; *EQUIPMENT; *LAND APPLICATIONS; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *TERTIARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D33-D39P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO ADVANCED WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE TERTIARY TREATMENT, PHYSICAL-CHEMICAL TREATMENT, COMPLETE PLANTS, AND LAND APPLICATIONS.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009402

PUBLICATION DATE: 83

TITLE: SLUDGE DIGESTION AND DISPOSAL.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D39-D50P.
ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO SLUDGE DIGESTION AND DISPOSAL. TOPICS ADDRESSED INCLUDE ANAEROBIC DIGESTION, AEROBIC DIGESTION, GAS UTILIZATION, CHEMICAL STABILIZATION, DEWATERING SLUDGE, FILTER CAKE DRYING, AND SLUDGE DISPOSAL.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009403

PUBLICATION DATE: 83

TITLE: DISINFECTION, ODOR PREVENTION AND CONTROL.

DESCRIPTOR: *DIRECTORIES; *DISINFECTION; *EQUIPMENT; *MANUFACTURERS; *ODORS; *ODOR CONTROL; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D50-D53P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO DISINFECTION, ODOR PREVENTION AND ODOR CONTROL RELATED TO WASTEWATER.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009404
PUBLICATION DATE: 83

TITLE: OPERATION CONTROL.

DESCRIPTOR: *DIRECTORIES; *EQUIPMENT; *MEASUREMENT; *MANUFACTURERS; *OPERATION CONTROL; *OPERATIONS (WASTEWATER); *SAFETY; *SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D53-D58P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO OPERATION CONTROL. TOPICS ADDRESSED INCLUDE FLOW MEASUREMENTS, SAMPLING, QUALITY, LABORATORY EQUIPMENT, SAFETY INSTRUMENTATION, AND SUPERVISORY CONTROL.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009405

PUBLICATION DATE: 83

TITLE: SEWER MAINTENANCE AND REHABILITATION.

DESCRIPTOR: *DIRECTORIES; *FACILITIES; *EQUIPMENT; *MAINTENANCE; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *SAFETY; *SEWERS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D58-D64P.
ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO SEWER MAINTENANCE AND REHABILITATION.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009406

PUBLICATION DATE: 83

TITLE: CONTRACT OPERATIONS AND MAINTENANCE SERVICES.

DESCRIPTOR: *CONTRACT OPERATIONS; *DIRECTORIES; *FACILITIES; *EQUIPMENT; *MAINTENANCE; *MANUFACTURERS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *QUALITY CONTROL; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D64-D67P.

ABSTRACT: LISTED IN THIS SECTION ARE DEVELOPERS AND MANUFACTURERS FOR VARIOUS ITEMS RELATED TO CONTRACT OPERATIONS AND MAINTENANCE SERVICES FOR WASTEWATER FACILITIES.

AVAILABILITY: PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW009407
PUBLICATION DATE: 83

TITLE: HUMAN RESOURCE DEVELOPMENT STRATEGIES FOR THE UN WATER DECADE.

PERSONAL AUTHOR: HAFNER, CRAIG; ROSENWEIG, FRED

DESCRIPTOR: *INTERNATIONAL ACTIVITIES; *RECOMMENDATIONS; *SANITATION; *TRAINING; *UNITED NATIONS; *WASH; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 21-32P.

ABSTRACT: THIS ARTICLE CONSIDERS HUMAN RESOURCE DEVELOPMENT RELATED TO WATER QUALITY EDUCATION AND TRAINING IN SEVERAL PARTS OF THE WORLD. VARIOUS PROJECTS ARE IDENTIFIED WITH PARTICULAR EMPHASIS ON THE U.S.A.I.D. FUNDED WATER AND SANITATION FOR HEALTH PROJECT. STRATEGIES USED FOR TRAINING AND SOME OF THE PROBLEMS ENCOUNTERED ARE IDENTIFIED. RECOMMENDATIONS FOR SEVERAL GROUPS ARE INCLUDED.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL, V5 N1

IRIS ACCESSION NUMBER: EW009408

PUBLICATION DATE: 83

TITLE: TOXICS AND GROUNDWATER: THE DEVELOPMENT AND

APPLICATION OF NET RISK ANALYSIS.

PERSONAL AUTHOR: WATERSTONE, MARVIN

DESCRIPTOR: *GROUNDWATER; *HAZARDOUS WASTES; *MANAGEMENT; *NET RISK ANALYSIS; *RESEARCH REPORTS; *RISK ASSESSMENT; *TOXIC SUBSTANCES; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 46-56P.

ABSTRACT: THIS PAPER CONSIDERS THE IMPACT OF PAST TOXIC DISPOSALS AND FUTURE WASTES ON GROUNDWATER SUPPLY. AFTER A BRIEF INTRODUCTION TO THE PROBLEMS IN N. JERSEY AND NATIONWIDE THE PAPER PRESENTS AN EVALUATION APPROACH, "NET RISK ANALYSIS" AND DISCUSSES PRELIMINARY FINDINGS FROM THE FIRST APPLICATION OF THIS TECHNIQUE.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009409

PUBLICATION DATE: 33

TITLE: A CAUSAL ANALYSIS OF URBAN FLOOD HAZARD BEHAVIORS.

PERSONAL AUTHOR: FRAZIER, JOHN W.; HARVEY, MILTON E.

DESCRIPTOR: ATTITUDES; EDUCATION; FLOOD HAZARDS; FLOOD PLAINS; *FLOODS; HEALTH; *HUMAN BEHAVIORS; *RESEARCH REPORTS; *URBAN AREAS; WATER SUPPLY

DESCRIPTIVE NOTE: 57-71P.

ABSTRACT: FLOOD-INDUCED MITIGATION BEHAVIORS ARE EXPLORED IN TERMS OF THEIR SYSTEMATIC RELATIONSHIPS TO SITUATIONAL, COGNITIVE AND POLICY PREFERENCE VARIABLES. A PATH ANALYSIS TECHNIQUE IS APPLIED TO DATA TO ANALYZE THE HYPOTHESIS. AN ANALYSIS OF INDIVIDUAL MITIGATION CHOICES IN TERMS OF THEIR LINKAGES TO SPECIFIC VARIABLES IS PROVIDED. THE RESULTS HAVE BOTH THEORETICAL AND PRACTICAL VALUE.

AVAILABILITY: THE ENVIRONMDNTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009410

PUBLICATION DATE: 83

TITLE: LEGAL CONSTRAINTS ON WATER RESOURCE MANAGEMENT IN TEXAS.

PERSONAL AUTHOR: TEMPLER, OTIS W.

DESCRIPTOR: *LEGISLATION; *MANAGEMENT; *PLANNING; *TEXAS; *WATER TOW; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 72-33P.

ABSTRACT: WATER AVAILABLLITY IS SIGNIFICANTLY INFLUENCED BY THE LEGAL FRAMEWORK CONTROLLING THE ALLOCATION AND MANAGEMENT OF WATER RESOURCES. EXAMINED ARE SOME LEGAL IMPEDIMENTS TO EFFICIENT MANAGEMENT OF INTERRELATED ATMOSPHERIC, SURFACE, AND SUBSURFACE WATER RESOURCES IN TEXAS. THE AUTHOR CONCLUDES THAT BECAUSE WATER LAW IS RELATIVELY RESISTANT TO CHANGE THAT RAPID REFORM CANNOT REASONABLY BE EXPECTED.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009411

PUBLICATION DATE: 83

TITLE: WATER MANAGEMENT IN THE ARID WEST: THE CHEYENNE WATER PROJECT.

PERSONAL AUTHOR: BEISWENGER, RONALD E.

DESCRIPTOR: *CHEYENNE WATER PROJECT; *COLORADO RIVER; *CONSERVATION; LEGISLATION; *MANAGEMENT; *PLANNING; *POLICIES; *POPULATION GROWTH; *PROJECT DEVELOPMENT; *WATER CONSERVATION; *WATER RESOURCES; WATER SUPPLY; *WYOMING

DESCRIPTIVE NOTE: 84-97P.

ABSTRACT: WYOMING HAS EXPERIENCED POPULATION GROWTH RELATED TO THE DEVELOPMENT OF ITS ENERGY RESOURCES. WITH CURRENT GROWTH AND ANTICIPATED FUTURE GROWTH, COMPETITION FOR WATER HAS INCREASED. THIS PAPER CONSIDERS POLICY, PLANNING, AND PROJECTS RELATED TO THE COLORADO RIVER BASIN TO PROVIDE FOR THESE NEEDS.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009412

PUBLICATION DATE: 83

TITLE: LAND USE CONTROLS TO PROTECT GROUNDWATER QUALITY IN THE ARID SOUTHWEST.

PERSONAL AUTHOR: STEPHENSON, [illegible]

DESCRIPTOR: *ARIZONA; *CASE STUDIES; CONTAMINATION; *GROUNDWATER; ENVIRONMENT; *LAND USE; *MANAGEMENT; *REGULATIONS; *WATER POLLUTION CONTROL; *WATER RESOURCES

DESCRIPTIVE NOTE: 98-105P.

ABSTRACT: THIS ARTICLE (1) IDENTIFIES SOME GROUNDWATER CONTAMINATION PROBLEMS WHICH RESULTED FROM A LACK OF ACTIVE LAND USE CONTROLS, (2) ARGUES FOR INCREASED STATE-LEVEL INVOLVEMENT IN LAND USE MANAGEMENT FOR ENVIRONMENTAL AND PUBLIC HEALTH ENDS, AND (3) SHOWS HOW LAND USE CONTROLS MAY BE USED TO COMPLEMENT MORE TRADITIONAL REGULATORY MEANS SUCH AS PERMITTING.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009413

PUBLICATION DATE: 83

TITLE: RESPONSE TO GROUNDWATER DEPLETION IN SOUTHWESTERN KANSAS.

PERSONAL AUTHOR: KROMM, DAVID E.; WHITE, STEPHEN E.

DESCRIPTOR: *ATTITUDES; *GROUNDWATER; *IRRIGATION; *KANSAS; *POLICIES; *REGULATIONS; *SURVEYS; *USER ATTITUDES; *WATER CONSERVATION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 106-115P.

ABSTRACT: THIS STUDY FOCUSES ON THE RESPONSE TO A SURVEY OF IRRIGATORS TO GROUNDWATER DEPLETION. PREFERENCE DIFFERENCES BETWEEN IRRIGATORS AND NON-IRRIGATORS FOR POSSIBLE ADJUSTMENTS OR MANAGEMENT STRATEGIES ARE EXAMINED. IN ADDITION, DIFFERENCES BETWEEN LARGE SCALE IRRIGATORS AND SMALL SCALE IRRIGATORS ARE NOTED. RESPONSE DIFFERENCES SUGGEST THAT A COMPREHENSIVE GROUNDWATER MANAGEMENT PLAN SUITABLE TO EVERYONE WILL BE DIFFICULT TO ACHIEVE.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009414

PUBLICATION DATE: 83

TITLE: WATER CONSERVATION: CONFLICTING ATTITUDES OF PLANNERS AND UTILITY MANAGERS.

PERSONAL AUTHOR: SAWYER, STEPHEN W.

DESCRIPTOR: *ATTITUDES; *CONSERVATION; *MARYLAND; *MANAGEMENT; *PLANNING; *POLICIES; RESEARCH NEED; SURVEYS; *WATER CONSERVATION; WATER RESOURCES; WATER SUPPLY

DESCRIPTIVE NOTE: 124-133P.

ABSTRACT: WATER SUPPLY PLANNERS AT THE 10 KEY REGULATORY AND ADVISORY ORGANIZATIONS IN MARYLAND WERE INTERVIEWED TO DETERMINE THEIR WATER CONSERVATION ATTITUDES AND RECOMMENDATIONS. IN A PARALLEL STUDY, THE WATER SUPPLY MANAGERS AT 35 MARYLAND UTILITIES WERE SURVEYED TO IDENTIFY THE EXTENT TO WHICH WATER CONSERVATION WAS USED IN SUPPLY MANAGEMENT IN NON-DROUGHT SITUATIONS. DIFFERING VIEWS OF PLANNERS AND MANAGERS ARE IDENTIFIED. SOME RESEARCH AND MANAGEMENT APPROACHES TO ALLEVIATE THESE DIFFERENCES AND TO FACILITATE PROGRAMS ARE IDENTIFIED.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL; V5 N1

IRIS ACCESSION NUMBER: EW009415

PUBLICATION DATE: JUL 82

TITLE: WASTEWATER UTILITY RECORDKEEPING, REPORTING AND MANAGEMENT INFORMATION SYSTEMS.

DESCRIPTOR: *ADMINISTRATION; *INFORMATION SYSTEMS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *RECORDS; *RECORDKEEPING; *REPORTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 94P. PRICE: $2.00

ABSTRACT: THE PURPOSE OF THIS DOCUMENT IS TO PROVIDE GUIDANCE FOR WASTEWATER UTILITY MANAGERS ON RECORDKEEPING AND MANAGEMENT SYSTEMS. THIS INFORMATION IS ESSENTIAL TO MANAGING A UTILITY TO ASSURE SUSTAINED ACCEPTABLE PERFORMANCE AT MINIMAL COST. SECTIONS OF THE DOCUMENT INCLUDE (1) INTRODUCTION, (2) FACILITY MANAGEMENT, (3) SUPPORT SERVICES MANAGEMENT, (4) FINANCE AND ACCOUNTING, AND (5) MANAGEMENT INFORMATION SYSTEM. EXAMPLES OF MANY RECORDS ARE INCLUDED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009416

PUBLICATION DATE: 83

TITLE: SLUDGE CHARACTERISTICS AND BEHAVIOR.

PERSONAL AUTHOR: CARBERRY, J. B.; ENGLANDE, A. J.

DESCRIPTOR: *ACTIVATED SLUDGE; *CONFERENCE PROCEEDINGS; *CHEMICAL PROPERTIES; *HEAVY METALS; *OPERATIONS (WASTEWATER); *PHYSICAL PROPERTIES; *RESEARCH; *SLUDGE CHARACTERISTICS; *SLUDGE CONDITIONING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 450P. PRICE: $65.50.

ABSTRACT: THIS IS THE PROCEEDINGS OF THE NATO ADVANCED STUDY INSTITUTE OF SLUDGE CHARACTERISTICS AND BEHAVIOR HELD AT THE UNIVERSITY OF DELAWARE IN 1979. BOTH RESEARCH AND APPLIED PERSPECTIVES ARE PRESENTED IN THE PAPERS.

AVAILABILITY: KLUWER BOSTON, INC., 190 OLD DERBY STREET, HINGHAM, MA 02043

IRIS ACCESSION NUMBER: EW009420

PUBLICATION DATE: MAY 83

TITLE: HAZARDOUS MATERIALS EMERGENCIES.

PERSONAL AUTHOR: CASHMAN, JOHN R.

DESCRIPTOR: *CASE HISTORIES; *EDUCATION; EMERGENCIES; EQUIPMENT; *HAZARDOUS MATERIALS; *PLANNING; *PUBLIC SAFETY; *RESPONSE ORGANIZATIONS; *TRAINING

DESCRIPTIVE NOTE: 400P. PRICE: $45.00

ABSTRACT: THIS GUIDE AND REFERENCE PROVIDES INFORMATION NEEDED TO PREPARE FOR AND DEAL WITH HAZARDOUS MATERIALS EMERGENCIES. INFORMATION IS INCLUDED ON THE FOLLOWING

TOPICS: TYPES OF EMERGENCIES, RESPONSE TEAMS, EQUIPMENT, STRATEGIES AND TECHNIQUES, CASE HISTORIES, PUBLIC SAFETY RESPONSE ORGANIZATIONS, TRAINING AND INSTRUCTION AND RESEARCH SOURCES.

AVAILABILITY: TECHNOMIC PUBLISHING COMPANY, INC., 851 NEW HOLLADD AVE., BOX 3535, LANCASTER, PA 17604

IRIS ACCESSION NUMBER: EW009422

PUBLICATION DATE: 83

TITLE: TASTE AND ODOUR IN WATERS AND AQUATIC ORGANISMS.

PERSONAL AUTHOR: PERSSON, P. E.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CONFERENCE PROCEEDINGS; FISH; MANAGEMENT; *MICROORGANISMS; *ODORS; *OPERATIONS (WATER); *ORGANIC COMPOUNDS; *TASTES; *WATER TREATMENT

DESCRIPTIVE NOTE: 310P. PRICE: 083.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF AN INTERNATIONAL SYMPOSIUM HELD IN FINLAND IN 1982. THE PAPERS IN THIS VOLUME DEAL WITH THE SUBJECTS OF THE SENSORY CHARACTERIZATION OF FLAVORS, AND METHODS FOR THE DETECTION AND MEASUREMENT OF TASTE AND ODORS IN WATER IN DIFFERENT COUNTRIES AND ENVIRONMENTS. THE ARTICLES CONSIDER ODOR AND TASTE CAUSING COMPOUNDS AND THE ORGANISMS RESPONSIBLE FOR THEM. METHODS FOR THE ABATEMENT OF TASTE AND ODOR PROBLEMS ARE CONSIDERED.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009423

PUBLICATION DATE: 83

TITLE: WATER VIROLOGY.

PERSONAL AUTHOR: GRABOW, W. O. K.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DRINKING WATER; *DISEASES; *MONITORING; *PUBLIC HEALTH; *VIROLOGY; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 140P. PRICE: 040.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF A SEMINAR HELD IN APRIL, 1982. CONTENTS INCLUDE AN EDITORIAL ON PUBLIC HEALTH AND WATER QUALITY, DISCUSSION OF INDICATOR SYSTEMS FOR VIROLOGICAL QUALITY, PREVALENCE OF DISEASE IN COMMUNITIES USING WASTEWATER IN AGRICULTURE, REMOVAL AND INACTIVATION OF VIRUSES, DISTRIBUTION OF ENTERIC VIRUSES AND MICROORGANISMS IN SOIL, AND DISINFECTION.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009424

PUBLICATION DATE: MAY 83

TITLE: PHOSPHATE REMOVAL IN BIOLOGICAL TREATMENT PROCESSES.

PERSONAL AUTHOR: WIECHERS, H. N. S.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CONFERENCE PROCEEDINGS; DESIGN; FACILITIES; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 370P. PRICE: [illegible].

ABSTRACT: THIS IS THE PROCEEDINGS OF A SEMINAR HELD IN APRIL, 1982. THE PAPERS IN THIS VOLUME ARE CONCERNED SPECIFICALLY WITH THE SUBJECT OF THE REMOVAL OF PHOSPHATE FROM WASTEWATER IN BIOLOGICAL TREATMENT PROCESSES. PAPERS ARE INCLUDED COVERING THE EARLY WORK ON PHOSPHORUS AND REVIEW THE EVIDENCE FOR VARIOUS PROPOSED PHOSPHORUS REMOVAL MECHANISMS. PAPERS ON MECHANISMS OF PHOSPHORUS REMOVAL, PILOT AND FULL SCALE PLANTS AND DESIGN.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW00942[illegible]

PUBLICATION DATE: 83

TITLE: MINE WATER POLLUTION.

PERSONAL AUTHOR: ODENDAAL, P. [illegible]

DESCRIPTOR: *ACID MINE WATER; *COAL MINING; *CONFERENCE PROCEEDINGS; *INDUSTRIAL WASTES; IRRIGATION; *MINING; *WATER POLLUTION CONTROL; *WASTE DISPOSAL; *WASTEWATER TREATMENT; WORLD PROBLEMS

DESCRIPTIVE NOTE: 180P. PRICE: 040.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF A SEMINAR HELD IN APRIL, 1982. THE PUBLICATION IS CONCERNED WITH MINE WATER POLLUTION IN THE UNITED STATES AND OTHER COUNTRIES.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009426

PUBLICATION DATE: 83

TITLE: MODERN TRENDS IN SLUDGE MANAGEMENT.

PERSONAL AUTHOR: MCGLASHAN, J. E.

DESCRIPTOR: AGRICULTURE; *CONFERENCE PROCEEDINGS; ECONOMICS; COMPOSTING; *LAND APPLICATION; *MANAGEMENT; *OPERATIONS (WASTEWATER); *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 254P. PRICE: $40.00.

ABSTRACT: THIS VOLUME OPENS WITH AN OVERVIEW OF DIGESTION PROCESSES, FOLLOWED BY EXPERIENCES IN SLUDGE DISINFECTION IN DIFFERENT COUNTRIES AND DEVELOPMENTS IN SLUDGE CONDITIONING AND DEWATERING. SEA AND LAND DISPOSAL PRACTICES CURRENTLY IN USE IN VARIOUS PARTS OF THE WORLD ARE DESCRIBED INCLUDING RELEVANT LEGISLATION AND HEALTH ASPECTS. USE OF SEWAGE SLUDGE IN AGRICULTURE, THE EFFECTS OF METALS IN SLUDGE, SLUDGE COMPOSTING, ENGINEERING PRACTICES, AND ECONOMICS ARE DISCUSSED.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009427

PUBLICATION DATE: 82

TITLE: MICROPOLLUTANTS IN THE ENVIRONMENT.

PERSONAL AUTHOR: JENKINS, S. H.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONFERENCE PROCEEDINGS; ENVIRONMENTAL IMPACT; GROUNDWATER; *INDUSTRIAL WASTES; METALS; *MICROPOLLUTANTS; *ORGANIC COMPOUNDS; RESEARCH; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 180P. PRICE: $36.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF A CONFERENCE HELD IN BELGIUM IN NOVEMBER, 1981. THE VOLUME COVERS A WIDE RANGE OF PROBLEMS ARISING FROM ORGANIC AND INORGANIC MICROPOLLUTANTS PRESENT IN THE AQUEOUS ENVIRONMENT. WHILE MOST OF THE POLLUTANTS ORIGINATE FROM INDUSTRIAL OPERATIONS, DISINFECTION OF WATER CONVERTS SOME NON-VOLATILE ORGANIC CONSTITUENTS INTO PRODUCTS HAVING MUTAGENIC PROPERTIES.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009428

PUBLICATION DATE: 83

TITLE: WATER POLLUTION RESEARCH AND CONTROL.

PERSONAL AUTHOR: JENKINS, S. H.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CONFERENCE PROCEEDINGS; ECONOMICS; MANAGEMENT; OPERATIONS (WASTEWATER); OIL POLLUTION; RECYCLING; *RESEARCH; TECHNOLOGY TRANSFER; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1500P. PRICE: $195.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF AN INTERNATIONAL CONFERENCE HELD IN SOUTH AFRICA IN 1982. THREE BROAD AREAS ARE COVERED. THE SUBJECT OF WATER QUALITY INCLUDES PAPERS ON THE EFFECTS OF INORGANIC AND ORGANIC POLLUTANTS, VIRUSES, AND THE CONTROL OF POLLUTION. SECONDLY, PROBLEMS OF WASTEWATER TREATMENT SUCH AS THE TRANSFER OF OXYGEN IN BIOLOGICAL PROCESSES, NUTRIENT REMOVAL AND SLUDGE DISPOSAL ARE DESCRIBED. ATTENTION IS ALSO FOCUSED ON PRACTICAL ASPECTS OF WATER RECYCLING, WATER POLLUTION CONTROL IN DEVELOPING COUNTRIES, AND OIL POLLUTION. THIRTY PAPERS GIVEN IN STATE-OF-THE-ART SESSIONS ON VARIOUS RELATED TOPICS ARE INCLUDED.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009429

PUBLICATION DATE: 82

TITLE: DISPOSAL OF SLUDGE TO SEA.

PERSONAL AUTHOR: DART, M. C.; JENKINS, S. H.

DESCRIPTOR: ECONOMICS; ENGINEERING; ENVIRONMENTAL IMPACT; POLICIES; *OPERATIONS (WASTEWATER); *OCEAN DUMPING; RESEARCH; *SEWAGE; *SLUDGE; *WASTE DISPOSAL; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 228P. PRICE: $86.00.

ABSTRACT: THIS IS THE PROCEEDINGS OF A CONFERENCE HELD IN 1981. THE VOLUME CONTAINS PAPERS DESCRIBING THE EFFECTS OF SLUDGE DISPOSED OF AT SEA UNDER VARIOUS CONDITIONS. THE TECHNICAL CONTROL OF THE PROCESS OF DISPOSAL AND METHODS FOR MINIMIZING THE CONTENT OF HEAVY METALS IN SLUDGE ARE CONSIDERED. THE EXPERIENCES OF SEA DUMPING OF SEWAGE SLUDGE FROM SHIPS OVER A PERIOD OF MANY YEARS ARE REPORTED AND DIFFERING POINTS OF VIEW ON NATIONAL SLUDGE DISPOSAL POLICIES ARE PRESENTED.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW00943[illegible]

PUBLICATION DATE: 82

TITLE: PRACTICAL EXPERIENCE OF CONTROL AND AUTOMATION IN WASTEWATER TREATMENT AND WATER RESOURCES MANAGEMENT.

PERSONAL AUTHOR: JENKINS, S. H.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; *AUTOMATION; *AUTOMATIC CONTROLS; *MANAGEMENT; MEASUREMENT; *MONITORING; *OPERATIONS (WASTEWATER); SENSORS; *WATER RESOURCES; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 820P. PRICE: $150.00.

ABSTRACT: THIS PUBLICATION CONTAINS MATERIALS FROM WORKSHOPS HELD IN 1981. INCLUDED ARE ARTICLES ON THE USE OF

SENSORS, AUTOMATIC MONITORING SYSTEMS, AUTOMATIC CONTROL SYSTEMS, AND APPLICATIONS USING SUCH ITEMS FOR WASTEWATER OPERATIONS AND WATER RESOURCE MANAGEMENT.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW009432

PUBLICATION DATE: 83

TITLE: EFFLUENT TREATMENT IN THE PROCESS INDUSTRIES.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *EFFLUENTS; *INDUSTRIAL WASTES; *LEGISLATION; *OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 500P. PRICE: $47.50.

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF A CONFERENCE HELD IN APRIL, 1983. THE PAPERS SURVEY THE FIELD OF EFFLUENT TREATMENT AS IT AFFECTS SEVERAL MAJOR INDUSTRIES. TECHNICAL AND LEGISLATIVE ASPECTS OF TREATMENT ARE CONSIDERED.

AVAILABILITY: PERGAMON PRESS, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBEP: EW009433

PUBLICATION DATE: JUL 83

TITLE: PROCEDURES AND PRACTICES IN ACTIVATED SLUDGE PROCESS CONTROL.

PERSONAL AUTHOR: ARTHUR, ROBERT M.

DESCRIPTOR: *ACTIVATED SLUDGE; *CONFERENCE PROCEEDINGS; *COMPUTER APPLICATIONS; *DESIGN; *FACILITIES; *MANAGEMENT; *MONITORING; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *PLANNING; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 240P. PRICE: $29.95.

ABSTRACT: THIS BOOK CONSIDERS PROCEDURES AND PRACTICES IN ACTIVATED SLUDGE PROCESS CONTROL. THE BEST OF EXISTING METHODS OF PROCESS CONTROL, AS WELL AS NEW TECHNIQUES ARE CONSIDERED. PAPERS SELECTED FOR THE BOOK WERE PRESENTED AT THE SECOND ANNUAL CONFERENCE ON ACTIVATED SLUDGE CONTROL.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW009435

PUBLICATION DATE: MAR 31

TITLE: PULPING EFFLUENTS: BIOLOGICAL TREATMENT. 1976-MARCH, 1983. (CITATIONS FROM THE PAPER AND BOARD, PRINTING AND PACKAGING INDUSTRIES).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *EFFLUENTS; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *PAPER INDUSTRY; *PULPING INDUSTRY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 174P. PRICE CODE: PC N01/MF N01, PB83-862482

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING EFFLUENT AND WASTEWATER BIOLOGICAL TREATMENT AND DISPOSAL IN THE PULPING INDUSTRY. EFFLUENT TOXICITY; TREATMENT PLANT MANAGEMENT, TREATMENT SYSTEMS AND EQUIPMENT DESIGN; COMBINED MECHANICAL AND BIOLOGICAL TREATMENT PROCESSES; BIOLOGICAL DEGRADATION TREATMENT IN CHEMICAL PULP MILLS; AND THE HANDLING AND DISPOSAL OF SOLID WASTES ARE AMONG THE TOPICS DISCUSSED. PERFORMANCE EVALUATIONS OF BIOLOGICAL TREATMENT PROCESSES IN DOMESTIC AND FOREIGN PLANTS IN FULL SCALE OPERATIONS AND PILOT PROGRAMS ARE CONSIDERED. (CONTAINS 121 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW0094[illegible]

PUBLICATION DATE: MAR 83

TITLE: AQUATIC WEED CONTROL: WATER HYACINTH. 1977-MARCH, 1983. (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *AQUATIC WEED CONTROL; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; BIOMASS; *WASTEWATER TREATMENT; *WATER HYACINTH; *WEED CONTROL

DESCRIPTIVE NOTE: 184P. PRICE CODE: PC N01/MF N01, PB83-862631

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF WATER HYACINTHS IN WASTE WATER TREATMENT FACILITIES AND THE MECHANICAL AND BIOLOGICAL CONTROL OF THESE AQUATIC PLANTS. THE USE AND EFFECTIVENESS OF WATER HYACINTHS FOR WASTE WATER TREATMENT SYSTEMS AND THE BIOLOGICAL MECHANISMS THAT MAKE THEM EFFECTIVE ARE DISCUSSED. THE USE OF WATER HYACINTH DIGESTED BIOMASS TO PRODUCE FUEL AND FOOD IS ALSO CONSIDERED. EQUIPMENT TO MECHANICALLY CONTROL THE WATER HYACINTH POPULATION IS DISCUSSED AS ARE METHODS TO CHEMICALLY AND BIOLOGICALLY CONTROL THEIR GROWTH. (THIS UPDATED BIBLIOGRAPHY CONTAINS 127 CITATIONS, 12 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009437

PUBLICATION DATE: 83

TITLE: 3000/2000 GPH ROWPU (REVERSE OSMOSIS WATER PURIFICATION UNIT).

PERSONAL AUTHOR: LINDSTEN, D. C.

DESCRIPTOR: *DRINKING WATER; *EQUIPMENT; *MOBILE EQUIPMENT; *OPERATIONS (WATER); *REVERSE OSMOSIS; *WATER TREATMENT

DESCRIPTIVE NOTE: 19P. PRICE CODE: PC A02/MA A01; AD-A125 660/1

ABSTRACT: THE ARMY'S NEED FOR A 3000/2000 GPH ROWPU IS STATED IN A ROC (REQUIRED OPERATIONAL CAPABILITY). IN RESPONSE TO THE ABOVE REQUIREMENT, MERADCOM IS DEVELOPING A 3000/2000 GPH WATER PURIFICATION UNIT FOR FIELD USE, BASED ON THE REVERSE OSMOSIS PRINCIPLE. THE UNIT MUST BE CAPABLE OF PRODUCING DRINKING WATER FROM ANY OF THE FOLLOWING RAW WATER SOURCES: RAW FRESH WATER; SEA WATER; BRACKISH WATER, WATER CONTAMINATED WITH NUCLEAR AGENT; WATER CONTAMINATED WITH BIOLOGICAL AGENT; AND WATER CONTAMINATED WITH CHEMICAL AGENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009438

PUBLICATION DATE: 80

TITLE: FIRST ANNUAL ENVIRONMENTAL CONFERENCE.

DESCRIPTOR: *AIR QUALITY; *CONFERENCE PROCEEDINGS; *ENVIRONMENTAL IMPACTS; *HERBICIDES; *HAZARDOUS MATERIALS; *MANPOWER NEEDS; *PESTICIDES; *WASTE DISPOSAL; *WATER RESOURCES

DESCRIPTIVE NOTE: 86P. PRICE CODE: PC A05/MF A01 DE83901240

ABSTRACT: CONCURRENT WORKSHOPS WERE HELD ON: STRUCTURE FOR COOPERATION; AIR QUALITY; WATER RESOURCES; PESTICIDES AND HERBICIDES; HAZARDOUS WASTE; AND MANPOWER AND DEVELOPMENT. (ERA CITATION 08:015087)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009439

PUBLICATION DATE: MAR 83

TITLE: OIL SPILLS: ENVIRONMENTAL EFFECTS. 1977-MARCH, 1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE.)

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *ENVIRONMENT; *ICE; *OCEANOGRAPHY; *OIL; *OIL SPILLS; *PERMAFROST; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 117P. PRICE CODE: PC N01/MF N01 PB83-862649

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE ENVIRONMENTAL EFFECTS OF OIL SPILLS AND THE BEHAVIOR OF SPILLS IN AND UNDER SEA ICE. THE HAZARDS OF CONTINENTAL SHELF OIL DEVELOPMENT CAUSED BY CLIMATIC EXTREMES ARE DISCUSSED, AND THE EFFECTS OF OIL SPILLS ON MARINE ANIMALS, FISH, AND BIRDS ARE CONSIDERED. THE INTERACTION OF OIL WITH ICE AND PERMAFROST ARE ALSO INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 83 CITATIONS, 28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009440

PUBLICATION DATE: 82

TITLE: UNITED STATES DEPARTMENT OF ENERGY/UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SEWAGE SLUDGE IRRADIATION PROJECT.

PERSONAL AUTHOR: YEAGER, J. G.; MCMULLEN, W. H.

DESCRIPTOR: *DISINFECTION; *EPA; *IRRADIATION; *IRRADIATION PROJECT; RECYCLING; REGULATIONS; *SEWAGE; *SLUDGE; TECHNOLOGY; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20P. PRICE CODE: PC A02/MF A01 DE82016722

ABSTRACT: THE MISSION OF THE UNITED STATES DEPARTMENT OF ENERGY BENEFICIAL USES OF NUCLEAR BYPRODUCTS PROGRAM IS TO IDENTIFY AND ENCOURAGE THE DEVELOPMENT OF TECHNOLOGY THAT USES RADIOACTIVE BYPRODUCTS FROM US DEFENSE NUCLEAR PROGRAMS TO PROVIDE ALTERNATIVE SOLUTIONS TO MAJOR NATIONAL PROBLEMS. A MAJOR PROJECT IN THE BENEFICIAL USES PROGRAM IS THE SEWAGE SLUDGE IRRADIATION PROJECT. THE TECHNOLOGY FOR THIS PROJECT WAS DEVELOPED AT SANDIA NATIONAL LABORATORIES AND USES THE RADIOACTIVE BYPRODUCT CESIUM-137 TO REDUCE PATHOGENIC MICRO-ORGANISMS IN SEWAGE SLUDGE TO LEVELS WHERE REUSE OF THE SLUDGE PRODUCT IN PUBLIC AREAS MEETS CURRENT REGULATORY CRITERIA FOR PROTECTION OF THE PUBLIC HEALTH. A LARGE-SCALE PILOT PLANT IS CURRENTLY IN OPERATION AND FULL-SCALE DEMONSTRATIONS OF THE TECHNOLOGY ARE ALSO PLANNED. (ERA CITATION 07:055206)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009441

PUBLICATION DATE: MAR 83

TITLE: METHANE FROM SOLID WASTES. 1978-MARCH, 1983

(CITATIONS FROM THE ENERGY DATA BASE.)

DESCRIPTOR: *ANAEROBIC DIGESTION; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; CHEMICAL REACTIONS; EQUIPMENT; FACILITIES; *METHANE; MICROBIOLOGY; *RESEARCH REPORTS; *SOLID WASTES; *TECHNOLOGY; WASTE DISPOSAL

DESCRIPTIVE NOTE: 339P.

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE PRODUCTION OF METHANE FROM SOLID WASTES. THE CITATIONS COVER THE MICROBIAL AND CHEMICAL PROCESSES, THE DESIGN AND FUNCTION OF THE DIGESTER EQUIPMENT, AND REPORTS ON CONSTRUCTION AND OPERATION OF CONVERSION PLANTS. A FEW ARTICLES REFERENCE THE STEAM GASIFICATION PROCESS, BUT MOST COVER THE ANAEROBIC DIGESTION PROCESS. (THIS UDDATED BIBLIOGRAPHY CONTAINS 340 CITATIONS, 31 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009442

PUBLICATION DATE: MAR 83

TITLE: METALS RECOVERY FROM WASTES. 1977-MARCH, 1983. (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE.)

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *METALS; *RESOURCE RECOVERY; *RECYCLING; *WASTEWATER; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 198P. PRICE CODE: PC N01/MF N01; PB83-861724

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE RECOVERY AND RECYCLING OR REUSE OF FERROUS AND NONFERROUS METALS FROM VARIOUS INDUSTRIAL WASTES, ESPECIALLY WASTE WATERS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 144 CITATIONS, 18 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009443

PUBLICATION DATE: JUN 82

TITLE: FINANCING WATER RESOURCES: COST ALLOCATION, COST SHARING, INCENTIVES. A TECHNOLOGY TRANSFER WORKSHOP, SEPTEMBER 20-23, 1977, JEKY

PERSONAL AUTHOR: NORTH, RONALD M.; HANKE, STEVEN H.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *COSTS; *FINANCES; *OPERATIONS (WATER); *PLANNING; *TECHNOLOGY TRANSFER; *WATER RESOURCES; *WORKSHOPS

DESCRIPTIVE NOTE: 128P. PRICE CODE: PC A07/MF A01; PB83-178145

ABSTRACT: THESE PROCEEDINGS FOCUS ATTENTION ON THE DEVELOPING ISSUES, PROBLEMS AND OPPORTUNITIES ASSOCIATED WITH FINANCING AND PAYING FOR THE INVESTMENTS AND COSTS OF WATER RESOURCES PROJECTS AND PROGRAMS. SELECTED PARTICIPANTS PREPARED 17 PAPERS ON THE PROBLEMS OF FINANCING AND COST SHARING IN WATER RESOURCES PLANNING, IMPLEMENTATION AND OPERATIONS. THE POSITION PAPERS AND FOUR WORKSHOP SUMMARIES ARE INCLUDED IN THE REPORT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009444

PUBLICATION DATE: SEP 82

TITLE: RURAL DRINKING WATER TECHNOLOGY TRANSFER ASSESSMENT.

PERSONAL AUTHOR: ROE, EUNICE M.; SHARPE, WILLIAM E.

DESCRIPTOR: *DRINKING WATER; *EVALUATION; *PROGRAM DESCRIPTIONS; *RURAL AREAS; *SURVEYS; *TECHNOLOGY TRANSFER; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 86P. PRICE CODE: PC A05/MF A01; PB83-181776

ABSTRACT: THE ASSESSMENT OF RURAL DRINKING WATER TECHNOLOGY TRANSFER NEEDS BEGINS WITH A SHORT DISCUSSION OF DRINKING WATER PROBLEMS, IN GENERAL, FOLLOWED BY THE SEARCH STRATEGY. IN ORDER TO IDENTIFY TECHNOLOGY TRANSFER PROGRAMS AND PUBLICATIONS, DRINKING WATER EXPERTS IN AGENCIES, ASSOCIATIONS AND CITIZENS GROUPS WERE CONTACTED, COMPUTERIZED LITERATURE SEARCHES CONDUCTED, AND LIBRARY MATERIALS CONSULTED. PRIMARY AND SECONDARY USERS OF RURAL DRINKING WATER INFORMATION ARE CHARACTERIZED AND THEIR NEEDS DISCUSSED. DRINKING WATER RESEARCH AND TECHNOLOGY TRANSFER PROGRAMS AND PRODUCTS RELEVANT TO SMALL WATER SYSTEM OWNERS/OPERATORS AND INDIVIDUAL WELL OWNERS ARE DISCUSSED AND EVALUATED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW0094[illegible]

PUBLICATION DATE: FEB 83

TITLE: DIRECTORY OF GROUNDWATER PROGRAMS AND ACTIVITIES OF FEDERAL GOVERNMENT.

DESCRIPTOR: *DIRECTORIES; *FEDERAL ROLE; *GROUNDWATER; FUNDING; MANAGEMENT; *PROGRAM DESCRIPTIONS; REGULATIONS; RESEARCH; TECHNICAL ASSISTANCE; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 81P. PRICE CODE: PC A05/MF A01; PB-

182048
ABSTRACT: THIS DIRECTORY PROVIDES BRIEF DESCRIPTIONS AND CONTACTS FOR ADDITIONAL INFORMATION ON EACH OF 44 GROUNDWATER PROGRAMS AND RECURRING GROUNDWATER-RELATED ACTIVITIES OF THE FEDERAL GOVERNMENT. IT WAS PREPARED IN RESPONSE TO REQUESTS FROM THE INTERSTATE CONFERENCE ON WATER PROBLEMS AND THE NATIONAL GOVERNOR'S ASSOCIATION AND WITH THE ASSISTANCE OF AGENCIES IDENTIFIED. THE DIRECTORY CONTAINS A LISTING OF THOSE REGULATORY, TECHNICAL ASSISTANCE, RESEARCH, FUNDING AND LAND MANAGEMENT ACTIVITIES OF THE FEDERAL GOVERNMENT THAT HAVE AS THEIR PRIMARY PURPOSE THE MONITORING, PROTECTION OR CONSERVATION OF GROUNDWATER QUANTITY AND QUALITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009446

PUBLICATION DATE: 78

TITLE: CHLOROFORM, CARBON TETRACHLORIDE, AND OTHER HALOMETHANES: AN ENVIRONMENTAL ASSESSMENT.

DESCRIPTOR: *CARBON TETRACHLORIDE; *CHLOROFORM; *ENVIRONMNNTAL ASSESSMENT; *HALOMETHANES; *PUBLIC HEALTH; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 309P. PRICE CODE: PC A14/MF A01; PB83-181263
ABSTRACT: THIS STUDY ASSESSES THE SCIENTIFIC AND TECHNICAL INFORMATION AVAILABLE ON A CLASS OF POTENTIAL MULTIMEDIA ENVIRONMENTAL POLLUTANTS, THE NONFLUORINATED HALOMETHANES. THIS CLASS OF COMPOUNDS INCLUDES THE CHLORINATED, BROMINATED, AND IODINATED METHANES, AND A FEW COMPOUNDS CONTAINING TWO DIFFERENT HALOGENS, SUCH AS BROMODICHLOROMETHANE. OF THESE COMPOUNDS, THE REPORT CONSIDERS CHLOROFORM AND CARBON TETRACHLORIDE IN THE GREATEST DETAIL, PRIMARILY BECAUSE THE DATA AVAILABLE ON THESE CHEMICALS ARE MORE EXTENSIVE THAN ON OTHER HALOMETHANES, AND THEY HAVE BEEN SHOWN TO BE CARCINOGENIC WHEN ADMINISTERED IN HIGH DOSES TO TEST ANIMALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009447

PUBLICATION DATE: MAR 82

TITLE: URBAN PLANNING CRITERIA FOR NON-POINT SOURCE WATER POLLUTION CONTROL.

PERSONAL AUTHOR: YOUNG, G. KENNETH; DANNER, DAVID L.

DESCRIPTOR: *MODELS; *PLANNING; *POLLUTION ABATEMENT; *NONPOINT SOURCE POLLUTION; STORM RUNOFF; *SURFACE RUNOFF; *URBAN AREAS; *WATER POLLUTION CONTROL; WATER RESOURCES; WATER QUALITY; *WASTEWATER COLLECTION
DESCRIPTIVE NOTE: 178P. PRICE CODE: PC A09/MF A01; PB83-182261

ABSTRACT: THE RESEARCH DESCRIBED IN THIS DOCUMENT COUPLES URBAN STORM RUNOFF QUALITY AND CONTROL ALTERNATIVES WITHIN THE CONTEXT OF AN URBAN SEWERAGE SYSTEM TO EVALUATE VARIOUS COMBINATIONS OF ALTERNATIVES THROUGH THEIR POLLUTION REMOVAL EFFICIENCIES AND THEIR COSTS. A MODEL HAS BEEN DEVELOPED WHICH SIMULATES THE RESPONSE OF A TYPICAL URBAN AREA TO A TIME SERIES OF RAINFALL EVENTS, AND WHICH USES THE DISTRICT OF COLUMBIA AS AN EXAMPLE. THE MODELING OF THE FLOW OF RUNOFF AND SEWAGE HAS BEEN PERFORMED AT A MACRO LEVEL; THE CONTROL ALTERNATIVES EXAMINED INCLUDE IN-LINE STORAGE, SEWER SEPARATION, STREET SWEEPING, SEWER FLUSHING, STORMWATER DETENTION, AND INCREASED TREATMENT CAPACITY. EACH POLLUTION ABATEMENT MEASURE IS DESCRIBED WITH A POLLUTION FUNCTION, A POLLUTION REMOVAL FUNCTION, AND A COST FUNCTION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009448

PUBLICATION DATE: JUN 82

TITLE: CHEMICAL ACTIVITIES STATUS REPORT, THIRD EDITION, VOLUME I.

PERSONAL AUTHOR: MERRICK, ELEANOR T.
DESCRIPTOR: *CHEMICALS; *CHEMICAL DATABASES; *EPA; *GUIDELINES; *RESEARCH; *REGULATIONS

DESCRIPTIVE NOTE: 404P. PRICE CODE: PC A18/MF A01; PB83-181925

ABSTRACT: VOLUME 1 PROVIDES NAMES AND SYNONYMS FOR CHEMICALS INCLUDED IN THE DATA BASE, BOTH ALPHABETICALLY AND BY REGISTRY NUMBER. VOLUME 2 GIVES BRIEF DESCRIPTIONS OF CHEMICAL-SPECIFIC REGULATIONS, GUIDELINES, AND STUDIES OF EPA. TOGETHER, THE REPORTS PERMIT USERS TO IDENTIFY CHEMICALS OF INTEREST TO EPA, AND DESCRIBE EPA ACTIVITIES RELATED TO THOSE CHEMICALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009449

PUBLICATION DATE: JUN 82

TITLE: CHEMICAL ACTIVITIES STATUS REPORT, THIRD EDITION, VOLUME 2.

PERSONAL AUTHOR: MERRICK, ELEANOR T.

DESCRIPTOR: *CHEMICALS; *CHEMICAL DATABASES; *EPA; *GUIDELINES; *REGULATIONS; *RESEARCH

DESCRIPTIVE NOTE: 412P. PRICE CODE: PC A18/MF A01; PB83-181925

ABSTRACT: VOLUME 1 PROVIDES NAMES AND SYNONYMS FOR CHEMICALS INCLUDED IN THE DATA BASE, BOTH ALPHABETICALLY AND BY REGISTRY NUMBER. VOLUME 2 GIVES BRIEF DESCRIPTIONS OF CHEMICAL-SPECIFIC REGULATIONS, GUIDELINES AND STUDIES OF EPA. TOGETHER, THE REPORTS PERMIT USERS TO IDENTIFY CHEMICALS OF INTEREST TO EPA, AND DESCRIBE EPA ACTIVITIES RELATED TO THOSE CHEMICALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009450

PUBLICATION DATE: FEB 75

TITLE: CONTINGENCY PLANNING GUIDELINES.

DESCRIPTOR: *CONTINGENCY PLANNING; *CONTINGENCY PLANS; *GUIDELINES; *HAZARDOUS MATERIALS; *OIL SPILLS; *PLANNNNG; *SPILLS

DESCRIPTIVE NOTE: 20P. PRICE: $2.00

ABSTRACT: THIS PUBLICATION WAS DEVELOPED TO IDENTIFY PERTINENT CONSTITUENTS OF A CONTINGENCY PLAN. THE GUIDELINES WILL ASSIST IN THE PREPARATION OF SPECIFIC CONTINGENCY PLANS FOR SPILLS OF OIL AND OTHER HAZARDOUS MATERIALS. A VIDEOTAPE TRAINING MODULE IS AVAILABLE TO USE WITH THE PULLICATION.
AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT, 1202 - 275 STATER STREET, OTTAWA K1P 5H9, CANADA

IRIS ACCESSION NUMBER: EW009451

PUBLICATION DATE: JAN 81

TITLE: RESPONSE TO INLAND OIL SPILLS.

PERSONAL AUTHOR: KENNEDY, N. A.; AND OTHERS

DESCRIPTOR: *CLEAN-UP; *CONTAINMENT; *DISPOSAL; *OIL; *OIL SPILLS; *PLANNING; *SPILLS

DESCRIPTIVE NOTE: 39P. PRICE: $3.00

ABSTRACT: THIS BOOKLET HAS BEEN PREPARED TO PROVIDE SOME PRACTICAL GUIDELINES TO THOSE WHO MAY BE DIRECTLY INVOLVED IN THE RESPONSE, CONTAINMENT, AND CLEAN-UP OF INLAND OIL SPILLS. THE GUIDELINES RELATE TO PETROLEUM SPILLS ON LAND, SOIL, AND WATER; THEY DO NOT APPLY TO CHEMICAL SPILLS. IN GENERAL, THE GUIDELINES ARE FOR A RESPONSE TO OIL SPILLS ON SMALL BODIES OF WATER, NOT THE GREAT LAKES OR THE OPEN OCEAN.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT, 1202 - 275 STATER STREET, OTTAWA, K1P 5H9, CANADA

IRIS ACCESSION NUMBER: EW009452

PUBLICATION DATE: JAN 76

TITLE: SAFETY AT THE SPILL SCENE.

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMICALS; *FIRE CONTROL; *HAZARDOUS MATERIALS; *OIL; *OIL SPILLS; *PLANNING; *SAFETY; *SPILLS

DESCRIPTIVE NOTE: 41P. PRICE: $2.00

ABSTRACT: THIS PUBLICATION IS INTENDED TO ACCOMPANY A TWO-PART VIDEOCASSETTE TRAINING MODULE OF THE SAME NAME AVAILABLE THROUGH THE CONSORTIUM ON SPILL TRAINING. SECTIONS INCLUDE SAFETY, HAZARDS OF PETROLEUM PRODUCTS, HAZARDS OF CHEMICALS, HAZARDS IN CONFINED AREAS, FIRE CONTROL, MARINE SAFETY, RESCUE, AND SAFETY COORDINATION. A QUESTIONNAIRE IS INCLUDED.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT, 1202 - 275 STATER STREET, OTTAWA K1P 5H9, CANADA

IRIS ACCESSION NUMBER: EW009453

PUBLICATION DATE: JUL 74
TITLE: PUBLIC RELATIONS AT THE SPILL SCENE.

DESCRIPTOR: *COMMUNICATION; *GUIDES; *INFORMATION DISSEMINATION; *OIL SPILLS; *PLANNING

DESCRIPTIVE NOTE: 18P. PRICE: $2.00

ABSTRACT: THIS PUBLICATION IS A GUIDE TO ASSIST IN DEVELOPING PUBLIC COMMUNICATION PLANS FOR USE DURING A SPILL INCIDENT. SECTIONS INCLUDE THE AUDIENCE, SPOKESMEN, INFORMATION, DISSEMINATION OF INFORMATION, LOCAL POPULATION, INJURIES OR DEATH, PRE-SPILL PLANNING, AND MEDIA MAN AT THE SCENE.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT, 1202 - 275 STATER STREET, OTTAWA K1P 5H9, CANADA

IRIS ACCESSION NUMBER: EW009454

PUBLICATION DATE: OCT 81

TITLE: LAND APPLICATION OF SEWAGE SLUDGE - PROCEEDINGS OF THE SEMINAR.

DESCRIPTOR: *AGRICULTURE; *CASE HISTORIES; *LAND APPLICATION; *MONITORING; *PATHOGENS; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 214P.

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF A SEMINAR HELD IN 1981 BY THE VIRGINIA WATER POLLUTION CONTROL ASSOCIATION. THE CONFERENCE INCLUDED PRESENTATIONS ON METHODOLOGIES RELATED TO LAND APPLICATION OF SEWAGE SLUDGE, APPLICATION RATES, MONITORING, EQUIPMENT, CASE HISTORIES, AND PATHOGENS.

AVAILABILITY: L. H. RODEN, JR., SEC-TREASURER, VWPCA, 8207 FRANCONIA ROAD, RICHMOND, VA 23227

IRIS ACCESSION NUMBER: EW009455

PUBLICATION DATE: DEC 78

TITLE: COST BENEFIT ANALYSIS OF SELECTED WASTEWATER BENEFICIATION SCHEMES.

PERSONAL AUTHOR: HINKEBEIN, THOMAS E.; NOREM, NANCY J.

DESCRIPTOR: *COST BENEFIT ANALYSIS; *ECONOMICS; *FERTILIZERS; *NITROGEN; *PHOSPHOROUS; *RESOURCE RECOVERY; *SLUDGE; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 67P.

ABSTRACT: THE FERTILIZER VALUE OF SEWAGE SLUDGE CAN BE ENHANCED BY THE ADDITION OF NITROGEN AND PHOSPHOROUS RECOVERED FROM MUNICIPAL WASTEWATER. TO ADDRESS THE PROBLEM OF NITROGEN AND PHOSPHOROUS RECOVERY FROM WASTEWATER SEVEN NITROGEN AND ONE PHOSPHOROUS REMOVAL PROCESSES WERE EVALUATED IN TERMS OF RECOVERY OF NITROGEN AND PHOSPHOROUS IN A USABLE FORM, TECHNOLOGICAL DEVELOPMENT, AND ECONOMICS. AIR STRIPPING AND CATION EXCHANGE WERE THE MOST PROMISING OF THE NITROGEN REMOVAL AND RECOVERY PROCESSES STUDIED. A TWO-STAGE LIME ADDITION PROCESS WAS EVALUATED FOR REMOVAL AND RECOVERY OF PHOSPHOROUS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009457

PUBLICATION DATE: AUB 80

TITLE: PRESCRIBED PROCEDURES FOR MEASUREMENT OF RADIOACTIVITY IN DRINKING WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *LABORATORY PROCEDURES; *MONITORING; *PRESCRIBED PROCEDURES; *RADIOACTIVITY; REGULATIONS; *WATER QUALITY; WATER TREATMENT

DESCRIPTIVE NOTE: 143P.

ABSTRACT: THIS MANUAL DESCRIBES APPROPRIATE ANALYTICAL PROCEDURES FOR MONITORING THE QUALITY OF DRINKING WATER FOR RADIONUCLIDE POLLUTANTS. INCLUDED ARE QUALITY ASSURANCE RESULTS OBTAINED FROM COLLABORATIVE TEST RESULTS AND FROM SINGLE LABORATORY REPLICATE ANALYSES. PROCEDURES DETAILED INCLUDE ANALYSIS OF GROSS APLHA ACTIVITY, GROSS BETA ACTIVITY, CESIUM-134, CESIUM-137, IODINE-131, RADIUM-226, RADIUM-228, STRONTIUM-89, STRONTIUM-90, TRITIUM, URANIUM AND THE ACTINIDE ELEMENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009458

PUBLICATION DATE: MAY 80

TITLE: AN OPERATIONS MANUAL FOR ACHIEVING NITRIFICATION IN AN ACTIVATED SLUDGE PLANT.

DESCRIPTOR: *ACTIVATED SLUDGE; JOB SKILLS; NITRIFICATION; OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *INSTRUCTIONAL MATERIALS

DESCRIPTIVE NOTE: 56P.

ABSTRACT: IN ONTARIO, THE ATTAINMENT OF NITRIFICATION (OXIDATION OF AMMONIA) IN ACTIVATED SLUDGE PLANTS IS RECEIVING INCREASED ATTENTION. NITRIFICATION OF WASTE WATER IS A NECESSARY REQUIREMENT BECAUSE IT REDUCES PLANT DISCHARGE OF NITROGENOUS OXYGEN DEMAND AND/OR TOXIC AMMONIA. HOWEVER, THIS NEW REQUIREMENT WILL RESULT IN ADDED RESPONSIBILITY FOR OPERATIONS PERSONNEL AND POSSIBLY IN THE EXPANSION AND/OR UPGRADING OF FACILITIES. THIS MANUAL DISCUSSES DIFFERENT DIMENSIONS OF NITRIFICATION AND RELATES THEM TO DAILY PLANT OPERATIONS. AN OVERVIEW OF THE CARBON AND NITROGEN CYCLES AND THEIR RELATIONSHIP TO ACTIVATED SLUDGE SYSTEMS PROVIDES A FOUNDATION FOR UNDERSTANDING THE PROCESSES AND PROBLEMS DISCUSSED. SUMMARY POINTS OF MAJOR SECTIONS INCLUDE: (1) THE TWO MAJOR NITRIFICATION BACTERIA ARE SUSCEPTIBLE TO FACTORS SUCH AS TEMPERATURE, CARBON-TO-NITROGEN RATIO, AND TOXIC SUBSTANCES; (2) VARIOUS SYSTEM CONFIGURATIONS ARE POSSIBLE FOR NITRIFICATION WITH PARTICULAR ADVANTAGES AND DISADVANTAGES SPECIFIC TO EACH; (3) OPERATION OF AN ACTIVATED SLUDGE NITRIFICATION PLANT REQUIRES CONTROL OF PARAMETERS SUCH AS SOLIDS RETENTION TIME, AERATION, DISSOLVED OXYGEN AND CLARIFIER SOLIDS LOADING; (4) UPGRADING OF SLUDGE WASTING FACILITIES PROVIDING LOW RATE CONTINUOUS FLOW IS HIGHLY RECOMMENDED FOR SOLIDS CONTROL; AND (5) FREQUENT SAMPLING AND ANALYSES WILL BE REQUIRED TO MONITOR A NITRIFICATION PLANT.

AVAILABILITY: MINISTRY OF GOVERNMENT SERVICES, PUBLICATIONS CENTRE, 880 BAY STREET, 5TH FLOOR, TORONTO, ONTARIO, CANADA M7A 1N8

IRIS ACCESSION NUMBER: EW009459

PUBLICATION DATE: AUG 81

TITLE: MAKING YOUR WAY THROUGH MURKY WATERS. A MANUAL FOR PUBLIC PARTICIPATION COORDINATORS IN NATURAL RESOURCES PLANNING.

PERSONAL AUTHOR: FRANKLIN, JANIS; AND OTHERS

DESCRIPTOR: AGENCY ROLE; *CTTIZEN PARTICIPATION; *COOPERATIVE PLANNING; COORDINATION; *COORDINATORS; GUIDELINES; INSTRUCTIONAL MATERIALS; LEARNING ACTIVITIES; *NATURAL RESOURCES; OBJECTIVES; ORIENTATION; ORIENTATION MATERIALS; PLANNING; POSTSECONDARY EDUCATION; PROGRAM DESIGN, *PROGRAM DEVELOPMENT; PROGRAM EVALUATION; *PROGRAM IMPLEMENTATION; PUBLIC RELATIONS; RESOURCE MATERIALS

DESCRIPTIVE NOTE: 44P.

ABSTRACT: DESIGNED FOR USE BY PUBLIC PARTICIPATION COORDINATORS IN NATURAL RESOURCES PLANNING, THIS MANUAL PROVIDES INFORMATION TO AID IN THE DEVELOPMENT OF A COORDINATED PLANNING STRATEGY BY DEFINING REASONABLE PROGRAM GOALS AND FOLLOWING THROUGH BY SELECTING APPROPRIATE MEANS AND METHODS. IN A DISCUSSION OF THE ORIENTATION STAGES OF PUBLIC INVOLVEMENT (PI) PLANNING THE FOLLOWING TOPICS ARE COVERED: GATHERING INFORMATION ABOUT THE PROJECT, THE PUBLIC, AND THE AGENCY; DETERMINING EXPECTATIONS AND IMPLICATIONS FOR PUBLIC INVOLVEMENT; AND DEVELOPING THE COORDINATOR'S ROLE. COVERED NEXT ARE SUCH ASPECTS AS LAYING THE GROUNDWORK FOR PI BY RALLYING AGENCY SUPPORT FOR THE PI PROGRAM, DEALING WITH DIFFERENT EXPECTATIONS, RELATING PI TO PROJECT PLANNING, STUDYING METHODS AND TECHNIQUES, EVALUATING TECHNIQUES, PREPARING DISCUSSION MATERIALS, AND COLLABORATING AND NEGOTIATING. FOCUS OF THE SECTION ON PROGRAM IMPLEMENTATION IS ON THE DESIGN PROCESS, DETAILED PREPARATION, AND EVALUATION. CONCLUDING THE MANUAL IS A BRIEF LIST OF REFERENCES.

AVAILABILITY: WATER RESOURCES RESEARCH INSTITUTE, NORTH CAROLINA STATE UNIVERSITY, 124 RIDDICK HALL, RALEIGH, NC 27650 (FREE).

IRIS ACCESSION NUMBER: EW009460

PUBLICATION DATE: JAN 82

TITLE: FERTILIZER USE AND WATER QUALITY.

PERSONAL AUTHOR: RENEAU, FRED; AND OTHERS

DESCRIPTOR: AUDIOVISUAL AIDS; ENVIRONMENTAL PROTECTION; *FERTILIZERS; FILMSTRIPS; *ILLINOIS; NATURAL RESOURCES; *SAFETY; SCRIPTS; SLIDES; *WATER POLLUTION; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 63P.

ABSTRACT: THIS BOOKLET PRESENTS INFORMATIVE MATERIALS ON FERTILIZER USE AND WATER QUALITY, SPECIFICALLY IN REGARD TO ENVIRONMENTAL POLLUTION AND PROTECTION IN ILLINOIS. THE FIVE CHAPTERS COVER THESE TOPICS: FERTILIZER AND WATER QUALITY, FERTILIZER USE, FERTILIZERS AND THE ENVIRONMENT, SAFETY PRACTICES, AND FERTILIZER MANAGEMENT PRACTICES. KEY QUESTIONS ARE FOUND AT THE END OF EACH CHAPTER. THE ANSWER SHEET IS LOCATED FOLLOWING CHAPTER 5. A GLOSSARY OF TERMS IS PROVIDED. THE SCRIPT TO A SLIDE/FILMSTRIP IS ATTACHED.

AVAILABILITY: SOUTHERN ILLINOIS UNIVERSITY, DEPARTMENT OF AGRICULTURAL EDUCATION AND MECHANIZATION, CARBONDALE, IL 62901

IRIS ACCESSION NUMBER: EW009461

PUBLICATION DATE: JUL 80

TITLE: PUMP OPERATION WORKSHOP. THIRD EDITION (REVISED).

DESCRIPTOR: *EQUIPMENT; EQUIPMENT MAINTENANCE; JOB SKILLS; POSTSECONDARY EDUCATION; *PUMPS; TRAINING; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER RESOURCES; WATER TREATMENT; WORKSHOPS

DESCRIPTIVE NOTE: 168P.

ABSTRACT: PRESENTED IS THE LEARNER'S MANUAL FOR A FIVE-DAY WORKSHOP DESIGNED TO SUPPLEMENT THE SKILLS OF WATER AND WASTEWATER TREATMENT PERSONNEL. THE PROGRAM CONSISTS OF LECTURE-DISCUSSIONS AND HANDS-ON SESSIONS COVERING THE OPERATION OF WATER AND WASTEWATER PUMPS. AREAS ADDRESSED INCLUDE: MATERIAL PUMPED, PUMP SYSTEMS, TYPES OF PUMPS, PUMP CONTROLS, VALVES, MOTORS, AND SAFETY. BEHAVIORAL OBJECTIVES FOR EACH SECTION, AND A GLOSSARY, ARE PROVIDED.

AVAILABILITY: MINISTRY OF GOVERNMENT SERVICES, PUBLICATION CENTRE, 880 BAY STREET, 5TH FLOOR, TORONTO, ONTARIO, CANADA M7A 1N8 (5.00)

IRIS ACCESSION NUMBER: EW009462

PUBLICATION DATE: APR 83

TITLE: WATER CONSERVATION: AN UPDATE OF FEDERAL ACTIVITY.
DESCRIPTOR: *FEDERAL AGENCIES; *FEDERAL ROLE; *PROGRAM DESCRIPTIONS; *STATE ROLE; *WATER CONSERVATION

DESCRIPTIVE NOTE: 34P.

ABSTRACT: THIS REVIEW WAS MADE TO UPDATE THE STATUS OF THE FEDERAL GOVERNMENT'S INVOLVEMENT IN WATER CONSERVATION. IT IS PART OF A CONTINUING SERIES OF EFFORTS BEGUN IN THE MID-1970'S DESIGNED TO HELP THE CONGRESS STAY CURRENT ON THIS ISSUE.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW009463

PUBLICATION DATE: 82

TITLE: SAFETY INFORMATION MANUAL.

DESCRIPTOR: *ACCIDENT PREVENTION; CHEMICALS; EQUIPMENT; FACILITIES; *GUIDELINES; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; *SAFETY; *SEWERS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 63P. PRICE: $2.00

ABSTRACT: THIS MANUAL CONTAINS GENERAL SAFETY GUIDELINES FOR WASTEWATER COLLECTION AND TREATMENT FACILITIES IN A FORMAT THAT IS FLEXIBLE. SECTIONS INCLUDE GENERAL SAFETY CONSIDERATIONS (HYGIENE, FIRST AID, CLOTHING, EYE PROTECTION, TOOLS, ETC.), PLANTS AND SEWERS. THE APPENDICES INCLUDE CHARTS, LISTS OF PROCEDURES, EQUIPMENT SELECTION GUIDELINES, PICTURES, AND COMMENTS ON CHEMICALS.

AVAILABILITY: LARRY MOON, SECRETARY-TREASURER, OWPCC, OEPA, P.O. BOX 1049, COLUMBUS, OH 43216

IRIS ACCESSION NUMBER: EW009470

PUBLICATION DATE: JUL 83

TITLE: REGULATORY INFORMATION SYSTEMS.

PERSONAL AUTHOR: GOLDSMITH, BARBARA J.

DESCRIPTOR: *COMPUTER APPLICATIONS; *DATABASES; *ENVIRONMENT; *INFORMATION NEEDS; *INFORMATION SYSTEMS; *LEGISLATION; *MANAGEMENT; *PLANNING; *REGULATIONS

DESCRIPTIVE NOTE: 306A-311AP.

ABSTRACT: DESCRIBED IS A SAMPLE FRAMEWORK FOR AN ENVIRONMENTAL MANAGEMENT INFORMATION SYSTEM. EXAMPLES OF SOME CURRENT DATABASES ARE GIVEN THAT INCLUDE REFERENCES ON REGULATIONS, LEGISLATION, AND REGULATORY INFORMATION.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N7

IRIS ACCESSION NUMBER: EW009471

PUBLICATION DATE: JUL 83

TITLE: FACTORS AFFECTING THE ACCURACY OF QUANTITATIVE ANALYSES OF PRIORITY POLLUTANTS USING GC/MS.

PERSONAL AUTHOR: KIRCHMER, CLIFF J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY TECHNIQUES; *PERFORMANCE EVALUATION; *POLLUTANTS; *PRIORITY POLLUTANTS; *RECOMMENDATIONS; *QUANTITATIVE ANALYSES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 396-401P.

ABSTRACT: EPA METHODS 624 AND 625 FOR PRIORITY POLLUTANT DETERMINATIONS BY GC/MS VS. THE INTERNAL STANDARD PROCEDURE WERE EVALUATED. RESULTS AND SUGGESTIONS ARE GIVEN.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N7

IRIS ACCESSION NUMBER: EW009472

PUBLICATION DATE: JUL 83

TITLE: RESAZURIN REDUCTION METHOD FOR ACTIVATED SLUDGE PROCESS CONTROL.

PERSONAL AUTHOR: LIU, DICKSON

DESCRIPTOR: *ACTIVATED SLUDGE; *ANALYTICAL TECHNIQUES; *BIOLOGICAL ACTIVITY; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *RESAZURIN REDUCTION METHOD; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 407-411P.

ABSTRACT: BIOLOGICAL ACTIVITY, O2 UPTAKE RATES, LEVELS OF MIXED LIQUOR SUSPENDED SOLIDS, AND HETEROTROPHIC BACTERIAL COUNT WERE DETERMINED BY USING THE RESAZURIN REDUCTION METHOD. THE RESAZURIN REDUCTION PROCEDURE MAY BE CONSIDERED AS AN ATTRACTIVE ALTERNATIVE TO THE EXISTING ATP TEST FOR USE IN THE CONTROL OF WASTEWATER TREATMENT PROCESSES.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N7

IRIS ACCESSION NUMBER: EW00947[illegible]

PUBLICATION DATE: JUL 83

TITLE: DEMONSTRATION PLANT TO YIELD NEW DATA ON FULL-SCALE GAC TREATMENT.
PERSONAL AUTHOR: KOFFSKEY, WAYNE; AND OTHERS

DESCRIPTOR: ACTIVATED CARBON; *DRINKING WATER; *COSTS; *GRANULAR ACTIVATED CARBON; *FACILITIES; *MAINTENANCE; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 42-45P.

ABSTRACT: GAC PERFORMANCE OVERTIME, GAC LOSSES, OPERATION AND MAINTENANCE COSTS ARE BEING INVESTIGATED AT A 3 MGD DEMONSTRATION PLANT.

AVAILABILITY: PUBLIC WORKS; V114 N7

IRIS ACCESSION NUMBER: EW0094[illegible]

PUBLICATION DATE: JUL 83

TITLE: DESIGN AND CONSTRUCTION OF A DEEP BAY OUTFALL.

PERSONAL AUTHOR: ANDERSON, H. V.

DESCRIPTOR: *CALIFORNIA; *CONSTRUCTION; *DESIGN; *EFFLUENTS; FACILITIES; *OUTFALLS; *PIPES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-47P.

ABSTRACT: DESCRIBED IS THE DESIGN AND CONSTRUCTION OF A DEEP BAY OUTFALL PIPELINE IN SAN FRANCISCO BAY.

AVAILABILITY: PUBLIC WORKS; V114 N7

IRIS ACCESSION NUMBER: EW009475

PUBLICATION DATE: JUL 83

TITLE: CORROSION AND SCALE INHIBITORS FOR WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: MCFARLAND, WAYNE E.

DESCRIPTOR: *CHEMICAL INHIBITORS; *CORROSION; *COSTS; *MAINTENANCE; *OPERATIONS (WATER); *PIPES; *SCALE CONTROL; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 53-56P.

ABSTRACT: REVIEWED ARE WATER TREATMENT METHODS FOR THE CONTROL OF SCALE AND CORROSION. SPECIAL CONSIDERATION IS GIVEN TO CHEMICAL INHIBITORS.

AVAILABILITY: PUBLIC WORKS; V114 N7

IRIS ACCESSION NUMBER: EW009476

PUBLICATION DATE: JUL 83
TITLE: TREATMENT PLANT UPGRADING BEATS TIGHT DEADLINE.

PERSONAL AUTHOR: WESNER, G. M.; AND OTHERS

DESCRIPTOR: *COMPLIANCE; *EFFLUENT; *FACILITIES; *NEVADA; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *PLANT MODIFICATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 60-63P.

ABSTRACT: DESCRIBED ARE MODIFICATIONS TO INCREASE CAPACITY AND REMOVE PHOSPHORUS TO BRING THE LAS VEGAS WASTEWATER TREATMENT PLANT INTO COMPLIANCE WITH EFFLUENT LIMITATIONS.

AVAILABILITY: PUBLIC WORKS; V114 N7

IRIS ACCESSION NUMBER: EW009477

PUBLICATION DATE: JUL 83

TITLE: NEW EQUIPMENT KEEPS CREWS OUT OF THE MANHOLES.

PERSONAL AUTHOR: VENUSO, NICHOLAS A.

DESCRIPTOR: *EQUIPMENT; *EQUIPMENT INSTALLATION; *INDUSTRIAL WASTES; *MONITORING; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 69-70P.

ABSTRACT: TWO DEVICES FOR INSTALLING INDUSTRIAL WASTEWATER MONITORING EQUIPMENT ARE DESCRIBED. THE DEVICES ENABLE CREWS TO INSTALL EQUIPMENT WITHOUT GOING INTO MANHOLES.

AVAILABILITY: PUBLIC WORKS; V114 N7

IRIS ACCESSION NUMBER: EW009478

PUBLICATION DATE: JUL 83

TITLE: VERSATILE PLANT HANDLES INDUSTRY AND COMMUNITY GROWTH.

PERSONAL AUTHOR: JAKES, STEPHEN

DESCRIPTOR: COSTS; *FACILITIES; *ILLINOIS; *OPERATIONS (WASTEWATER); *OXIDATION DITCHES; MAINTENANCE; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10-11P.

ABSTRACT: DESCRIBED IS A WASTEWATER TREATMENT PLANT IN ILLINOIS THAT MODIFIED ITS TREATMENT FACILITY TO USE OXIDATION DITCHES. THE DITCHES USE MAGNA ROTORS AND SPIRAFLO CLARIFIERS. THE PLANT HAS OPERATED WITH HIGH EFFICIENCY AND REASONABLE COSTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N7

IRIS ACCESSION NUMBER: EW009479

PUBLICATION DATE: JUL 83

TITLE: ECLECTIC MANAGEMENT SOLVING CLEVELAND UTILITY'S PROBLEMS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *MANAGEMENT; *PLANNING; *OHIO; *OPERATIONS (WATER); *PROBLEM SOLVING; *UTILITIES; URBAN AREAS; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 12852P.

ABSTRACT: DESCRIBED ARE RECENT MANAGEMENT CHANGES FOR CLEVELAND, OHIO'S DIVISION OF WATER. CHANGES INCLUDE A 10-WEEK MANAGEMENT COURSE FOR SUPERVISORS, CHANGES IN MANAGEMENT STRUCTURE, INCREASING CONTRACT HELP FOR JOBS REQUIRING RAPID ACTION, AND CONTACTING USERS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N7

IRIS ACCESSION NUMBER: EW009480

PUBLICATION DATE: JUL 83

TITLE: THE POWER OF GRAVITY CUTS WATER COSTS.

PERSONAL AUTHOR: FOHRMAN, MARTIN S.

DESCRIPTOR: *AUTOMATIC CONTROL; *AUTOMATION; *CALIFORNIA; *COSTS; *FACILITIES; *DESIGN; *GRAVITY FLOW; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 26-28P.

ABSTRACT: DESCRIBED IS A NEW WATER TREATMENT PLANT IN SOUTHERN CALIFORNIA THAT RELIES ON GRAVITY, AUTOMATED CONTROLS, AND VERY LITTLE ELECTRIC POWER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N7

IRIS ACCESSION NUMBER: EW009481

PUBLICATION DATE: JUL 83

TITLE: NITRIFICATION BACK ON TRACK.

PERSONAL AUTHOR: RALSTON, DOUGLAS L.

DESCRIPTOR: AMMONIA; *DECISION MAKING; *FACILITIES; *MANAGEMENT; NITROGEN; *NITRIFICATION; *OPTIMIZATION PROGRAMS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 29-30P.

ABSTRACT: A CAREFUL STUDY OF NITRIFICATION PROBLEMS AT AN OHIO WASTEWATER TREATMENT PLANT INDICATED THE PLANT COULD FUNCTION AND PROVIDE SATISFACTORY OPERATIONS. A PROGRAM TO IMPROVE OPERATOR KNOWLEDGE OF THE NITRIFICATION PROCESS AND OPERATIONAL CONTROL TECHNIQUES FOR SOLIDS HANDLING WAS DEVELOPED. IN ADDITION A NUMBER OF CHANGES WERE MADE IN OPERATIONS AND MANAGEMENT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N7

IRIS ACCESSION NUMBER: EW009482

PUBLICATION DATE: JUL 83

TITLE: PUMPS THAT PLAY TURBINES.

PERSONAL AUTHOR: JAMES, KENNETH R.

DESCRIPTOR: *DESIGN; *ELECTRICITY; *GENERATORS; *HYDROLECTRIC STATIONS; *PERFORMANCE EVALUATION; *PUMPS; *REVERSE PUMP TURBINES; *TURBINES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 32-36P.

ABSTRACT: WATER AUTHORITIES ARE TAKING A HARD LOOK AT HOW TO USE THE UNTAPPED ENERGY IN THEIR PIPELINES TO PRODUCE HYDROPOWER AND SAVE MONEY. REVERSE-PUMP TURBINES OFTEN FIT THE VARYING CONDITIONS FOUND IN WATER SUPPLY SYSTEMS AND CAN BE APPLIED TO THIS TASK.

AVAILABILITY: WATER ENGINEERI[illegible]

IRIS ACCESSION NUMBER: EW009483

PUBLICATION DATE: JUL 83

TITLE: CONTROL OPTIONS FOR NITRATES AND FLUORIDES.

PERSONAL AUTHOR: O'BRIEN, WALTER J.

DESCRIPTOR: *DRINKING WATER; *FLUORIDES; *OPERATIONS (WATER); *NITRATES; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: NITRATE AND FLUORIDE CONCENTRATIONS IN DRINKING WATER SUPPLIES MUST BE CONTROLLED FOR SOUND PUBLIC HEALTH REASONS. THIS CAN POSE PROBLEMS FOR SMALLER COMMUNITIES, BUT SOLUTIONS ARE AVAILABLE FOR MEETING MANDATED REQUIREMENTS. SOME POSSIBLE SOLUTIONS ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N7

IRIS ACCESSION NUMBER: EW0094[illegible]

PUBLICATION DATE: JUL 83

TITLE: DENVER'S WATER CONSERVATION PROGRAM.

PERSONAL AUTHOR: WILEY, R. D.

DESCRIPTOR: *COLORADO; *CONSERVATION; *PROGRAM DESCRIPTIONS; *POTABLE WATER; *WATER CONSERVATION; *WATER SUPPLY

DESCRIPTIVE NOTE: 320-323P.

ABSTRACT: THE DENVER WATER DEPARTMENT HAS DEVELOPED A CONTINUOUS WATER CONSERVATION PROGRAM. DESCRIBED IS DENVER'S PROGRAM OF ISSUING DAILY EVAPOTRANSPIRATION FORECASTS, ASSISTING CUSTOMERS IN PLANNING LOW-WATER-DEMAND LANDSCAPING, AND RESTRICTING OUTSIDE WATER USE IF SHORTFALLS IN TREATMENT CAPACITY OCCUR.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW0094[illegible]

PUBLICATION DATE: JUL 83

TITLE: CHOOSING THE OPTIMAL WATER CONSERVATION POLICY.

PERSONAL AUTHOR: LORD, WILLIAM B.; AND OTHERS

DESCRIPTOR: *ATTITUDES; *COLORADO; *CONSERVATION; *POTABLE WATER; *PUBLIC ATTITUDES; *SURVEYS; *WATER CONSERVATION; *WATER SUPPLY

DESCRIPTIVE NOTE: 324-329P.

ABSTRACT: REPORTED ARE THE RESULTS OF A SURVEY OF 600 USERS IN THREE COMMUNITIES IN COLORADO. AN INVERSE RELATIONSHIP BETWEEN PUBLIC ACCEPTANCE OF A GIVEN PROGRAM FOR CONSERVATION FOR LOW IRRIGATION AND THE EFFECTIVENESS OF THE PROGRAM IS INDICATED. CONSERVATION PRICING, WHICH IS ONLY MODERATELY ACCEPTABLE TO USERS, WOULD BE MOST LIKELY TO CHANGE HABITS AND SAVE WATER; IT WOULD ALSO BE THE MOST FINANCIALLY FEASIBLE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009486

PUBLICATION DATE: JUL 83

TITLE: REDUCING WATER DEMAND AND WASTEWATER FLOW.

PERSONAL AUTHOR: MADDAUS, WILLIAM O.; AND OTHERS

DESCRIPTOR: *CALIFORNIA; *FLOW REDUCTION; *FACILITY NEEDS; *PLANNING; *PLUMBING; *WATER CONSERVATION; *WASTEWATER TREATMENT; *WASTEWATER FLOW

DESCRIPTIVE NOTE: 330-335P.

ABSTRACT: REPORTED IS A STUDY OF A CALIFORNIA WATER AND WASTEWATER SERVICES DISTRICT THAT FOUND THAT A WATER SAVINGS OF 30 GALLONS PER DAY COULD BE ACHIEVED FOR AN AVERAGE HOUSEHOLD BY THE INSTALLATION OF WATER-SAVING PLUMBING FIXTURES. REDUCING WATER FLOW REQUIRING WASTEWATER TREATMENT WOULD ELIMINATE THE NEED TO EXPAND THE DISPOSAL SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009487

PUBLICATION DATE: JUL 83

TITLE: NONCRISIS USE OF HOUSEHOLD WATER-SAVING DEVICES.

PERSONAL AUTHOR: PALMINI, DENNIS J.; SHELTON, THEODORE B.

DESCRIPTOR: CONSERVATION; *FINANCES; *REVENUES; *WATER CONSERVATION; *WATER RATES

DESCRIPTIVE NOTE: 336-341P.

ABSTRACT: A LIMITED WATER CONSERVATION PROGRAM WAS UNDERTAKEN IN THE LATE 1970'S IN EAST BRUNSWICK, N.J. TO FORESTALL LONG-RANGE SUPPLY PROBLEMS. THE PROGRAM WAS SUCCESSFUL IN REDUCING WATER USE, BUT ALSO CAUSED SHORTFALLS IN REVENUES. BECAUSE OF POLITICAL RELUCTANCE TO RAISE WATER RATES, MUNICIPAL OFFICIALS ABANDONED THE EFFORT TEMPORARILY; THEY ARE PLEDGED TO RESUME THE PROGRAM WHEN THE FISCAL CRISIS PASSES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW00948[illegible]

PUBLICATION DATE: JUL 83

TITLE: MINIMUM-FLOW PLUMBING FIXTURES

PERSONAL AUTHOR: SIEGRIST, RO[illegible]

DESCRIPTOR: *CONSERVATION; *COSTS; *ECONOMICS; *PLUMBING; *WATER CONSERVATION

DESCRIPTIVE NOTE: 342-347P.

ABSTRACT: MEANS OF REDUCING DOMESTIC USE OF POTABLE WATER ARE AVAILABLE THROUGH THE USE OF MINIMUM-FLOW PLUMBING FIXTURES. ALTHOUGH INITIAL COSTS OF THE PRODUCTS ARE SOMEWHAT HIGHER THAN THOSE OF CONVENTIONAL FIXTURES, SAVINGS IN ENERGY COSTS FOR HEATING WATER AND SAVINGS RESULTING FROM REDUCTION IN WASTEWATER FLOWS MAKE INSTALLATION ECONOMICALLY FEASIBLE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009489

PUBLICATION DATE: JUL 83

TITLE: WASTEWATER REUSE: A RESOURCE OR A NUISANCE?

PERSONAL AUTHOR: DEBOER, JON G.

DESCRIPTOR: *ATTITUDES; *AGRICULTURE; *COSTS; *INDUSTRY; *RECYCLING; *RESEARCH; *WATER REUSE; *WATER CONSERVATION; *WATER SUPPLY

DESCRIPTIVE NOTE: 348-356P.

ABSTRACT: TO SOLVE SOME OF THE REAL PROBLEMS OF WATER SUPPLY SHORTAGES, WATER REUSE IS A FEASIBLE ALTERNATIVE FOR INDUSTRIAL AND AGRICULTURAL USES. INDIRECT REUSE OF WATER OCCURS ROUTINELY, BUT PLANNED DIRECT USE OF TREATED WASTEWATER FOR POTABLE SUPPLIES IS CONSTRAINED BY LACK OF RESEARCH ON HEALTH EFFECTS, PUBLIC ACCEPTANCE OF THE CONCEPT, AND COSTS. WATER SUPPLIERS NEED TO EXPLORE POSSIBLE USES AND NEEDED RESEARCH.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009490
PUBLICATION DATE: JUL 83

TITLE: THE DESIGN OF IN-LINE JET INJECTION BLENDERS.

PERSONAL AUTHOR: GUVEN, OKTAY; BENEFIELD, LARRY

DESCRIPTOR: *COAGULATION; *INJECTION BLENDERS; *JET INJECTION; *OPERATIONS (WATER); *RAPID MIXING; *WATER TREATMENT

DESCRIPTIVE NOTE: 357-363P.

ABSTRACT: RAPID MIXING IS IMPORTANT IN THE OVERALL PROCESS OF COAGULATION. IN-LINE JET INJECTION BLENDERS ARE EFFICIENT RAPID-MIX UNITS THAT ARE INEXPENSIVE TO CONSTRUCT AND OPERATE. LITERATURE PERTINENT TO THE MIXING OF A SIDE JET IS DISCUSSED. A PROPOSED DESIGN PROCEDURE IS REFINED TO INCLUDE VELOCITY RATIO AND DIAMETER RATIO AS DESIGN VARIABLES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009491

PUBLICATION DATE: JUL 83

TITLE: OPTIMIZING LARGE-SCALE WATER TREATMENT PLANTS FOR ASBESTOS-FIBER REMOVAL.

PERSONAL AUTHOR: MCGUIRE, MICHAEL J.; AND OTHERS

DESCRIPTOR: *ASBESTOS; *FACILITIES; *OPERATIONS (WATER); *OPTIMIZED TREATMENT; *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 364-370P.

ABSTRACT: THIS STUDY ASSESSES THE ABILITY OF FIVE WATER TREATMENT PLANTS TO REMOVE ASBESTOS FROM THEIR INFLUENT WATERS. STANDARD TREATMENT WAS ALTERNATED WITH OPTIMIZED TREATMENT. OPTIMIZED TREATMENT REDUCED EFFLUENT ASBESTOS CONCENTRATIONS, BUT DID NOT GUARANTEE A LOW CONCENTRATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009492

PUBLICATION DATE: JUL 83

TITLE: COLIFORM OCCURRENCE AND CHLORINE RESIDUAL IN SMALL WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: GOSHKO, MARC A.; AND OTHERS

DESCRIPTOR: *CHLORINE; *CHLORINE RESIDUAL; *COLIFORMS; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 371-374P.
ABSTRACT: THE DATA REPORTED IN THIS STUDY SHOW BOTH DIRECT AND INVERSE RELATIONSHIPS BETWEEN FREE CHLORINE RESIDUAL AND COLIFORM OCCURRENCE. COLIFORMS WERE FOUND IN ALL CHLORINE RANGES. SEVERAL MECHANISMS OF COLIFORM SURVIVAL IN THE PRESENCE OF A FREE CHLORINE RESIDUAL ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009493

TITLE: REMOVING URANIUM BY CURRENT MUNICIPAL WATER TREATMENT PROCESSES.

PERSONAL AUTHOR: WHITE, S. K.; BONDIETTI, E. A.

DESCRIPTOR: *ALUM; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *PH; *RESEARCH; *URANIUM; *WATER TREATMENT

ABSTRACT: THIS ARTICLE DESCRIBES A STUDY OF URANIUM REMOVAL FROM INFLUENT WATERS AT 20 MUNICIPAL WATER TREATMENT PLANTS. THE PLANTS USE VARIOUS COMBINATIONS OF CONVENTIONAL TREATMENT PROCESSES - COAGULATION, SEDIMENTATION, FILTRATION, AND CHLORINATION. THE EFFECTS OF PH AND CHEMICAL (ALUM) DOSAGES ON URANIUM REMOVAL ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N7

IRIS ACCESSION NUMBER: EW009495

PUBLICATION DATE: 82

TITLE: USE OF WATER QUALITY MODELS IN MANAGEMENT DECISION MAKING.

PERSONAL AUTHOR: FARNWELL, THOMAS O., JR.; KRENKEL, PETER A.

DESCRIPTOR: *DECISION MAKING; *DESIGN; *MANAGEMENT; *MODELS; *PLANNING; *SCREENING; *WATER QUALITY

DESCRIPTIVE NOTE: 15P. PB83-1[illegible] PRICE CODE: PC A02/MF A01

ABSTRACT: THE USE OF WATER QUALITY MODELS IN THREE MANAGEMENT CONTEXTS IS DESCRIBED: SCREENING, PLANNING, AND DESIGN. SCREENING MODELS ARE ILLUSTRATED BY DESCRIBING A METHODOLOGY APPLICABLE TO LARGE AREAS OF LAND AND ANOTHER APPLIED TO A LARGE NUMBER OF CHEMICALS. THE APPLICATION OF MODELS IN A PLANNING CONTEXT IS ILLUSTRATED BY A LOCAL PLANNING AGENCY'S USE IN DEVELOPING NONPOINT SOURCE CONTROL STRATEGIES AND BY THE FEDERAL GOVERNMENT'S USE IN ASSESSING POTENTIAL EXPOSURE TO A PESTICIDE. DEVELOPMENT OF DESIGN CRITERIA IS ILLUSTRATED BY SUMMARIZING THE LONG HISTORY OF MODEL USE TO DEVELOP EFFLUENT LIMITS IN THE HOLSTON RIVER BASIN (TENNESSEE).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009496

PUBLICATION DATE: FEB 80

TITLE: UNDERGROUND DISPOSAL OF STORM WATER RUNOFF: DESIGN GUIDELINES MANUAL.

PERSONAL AUTHOR: HANNON, JOSEPH B.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *GUIDELINES; *INFILTRATION; *MAINTENANCE; *STORMWATER; *SURFACE RUNOFF; *SUBSURFACE DISPOSAL; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 330P. PB33-180257 PRICE CODE: PC A15/MF A01

ABSTRACT: THIS MANUAL PROVIDES DESIGN GUIDELINES FOR SUBSURFACE DISPOSAL OF STORM WATER BY MEANS OF INFILTRATION INTO SOIL. THE STATE-OF-THE-ART FOR DESIGN, MAINTENANCE, AND CONSTRUCTION OF VARIOUS INFILTRATION DRAINAGE SYSTEMS IS PRESENTED. INFILTRATION BASINS, TRENCHES, AND WELLS ARE DISCUSSED IN DETAIL. ALSO INCLUDED ARE ENVIRONMENTAL AND LEGAL CONSIDERATIONS RELATIVE TO THESE SYSTEMS. IN SOME INSTANCES, DISPOSAL OF STORM WATER BY INFILTRATION CAN PROVIDE A PRACTICAL AND ATTRACTIVE ALTERNATIVE TO THE MORE CONVENTIONAL AND OFTEN COSTLIER STORM WATER CONVEYENCE SYSTEMS. WATER RESOURCES PLANNERS AND HIGHWAY DRAINAGE ENGINEERS FROM STATES, CITIES, COUNTIES, AND APPROPRIATE CONSULTING FIRMS CAN USE THIS MATERIAL AS A PRIME REFERENCE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009497

PUBLICATION DATE: APR 83

TITLE: ION SELECTIVE ELECTRODES. 1964-MARCH 1983 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CHEMICAL ANALYSIS; ELECTRODES; *ION SELECTIVE ELECTRODES; *LABORATORY EQUIPMENT; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 268P. PB83-804948 PRICE CODE: PC N01/MF N01

ABSTRACT: FEDERALLY-FUNDED RESEARCH ON THE USE OF ION SELECTIVE ELECTRODES FOR CHEMICAL ANALYSIS IS CITED. DESIGN, ANALYTICAL METHODS, AND APPLICATIONS ARE COVERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 260 CITATIONS, 26 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009498

PUBLICATION DATE: APR 83

TITLE: PHOSPHORUS REMOVAL IN SEWAGE TREATMENT SYSTEMS. 1977-MARCH 1983 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *RESEARCH REPORTS; *SEWAGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 178P. PB83-804985 PRICE CODE: PC N01/MF N01

ABSTRACT: THE CITATIONS COVER THE REMOVAL OF PHOSPHORUS IN SEWAGE TREATMENT SYSTEMS. STUDIES ARE INCLUDED ON PRECIPIATION, SEWAGE MICROBIOLOGY, TERTIARY SEWAGE TECHNIQUES, SYSTEM DESIGNS, OXYGENATION, AND COMBINED INDUSTRIAL-SEWAGE PROCESSES. LAND DISPOSAL METHODS ARE ALSO CITED IF THEY DISCUSS THE FATE OF THE PHOSPHORUS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 159 CITATIONS, 18 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009499

PUBLICATION DATE: APR 83

TITLE: OZONIZATION USED IN WATER AND SEWAGE TREATMENT. 1970-MARCH 1983 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *DISINFECTION; *DRINKING WATER; *EQUIPMENT; *INDUSTRIAL WASTES; *OZONIZATION; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL; *WATER TREATMENT

DESCRIPTIVE NOTE: 231P. PB83-804936 PRICE CODE: PC N01/MF N01

ABSTRACT: THE BIBLIOGRAPHY CITES FEDERALLY-FUNDED RESEARCH IN THE USE OF OZONE TO TREAT INDUSTRIAL WASTE WATER, SEWAGE, AND DRINKING WATER. IT DISCUSSES TREATMENT, TESTS, PERFORMANCE OF EQUIPMENT, AND EFFECTIVENESS OF OZONE IN WATER POLLUTION CONTROL. (THIS UPDATED BIBLIOGRAPPY CONTAINS 222 CITATIONS, 36 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009500

PUBLICATION DATE: APR 83

TITLE: WATER POLLUTION EFFECTS OF METALS ON FRESH WATER FISH. 1964-MARCH 1983 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIB[illegible]

*FISH; HEAVY METALS; *INDUSTRIAL WASTES; *METALS; *RESEARCH; *WASTEWATER; *WATER POLLUTION

DESCRIPTIVE NOTE: 195P. - PB83-804372 PRICE CODE: PC N01/MF N01

ABSTRACT: THE HEAVY METALS COVERED IN THE BIBLIOGRAPHY INCLUDE COPPER, ZINC, MERCURY, CHROMIUM, CADMIUM, LEAD AND IRON. THE ABSTRACTS INCLUDE STUDIES ON THE DISTRIBUTION OF METALS AND WATER QUALITY AS A RESULT OF POLLUTION BY SEWAGE EFFLUENTS AND INDUSTRIAL WASTES. ALSO DISCUSSED ARE BIOACCUMULATION, INDICATOR SPECIES, TOXIC EFFECTS, AND FOOD CHAINS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 187 CITATIONS, 17 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009501

PUBLICATION DATE: APR 83

TITLE: OZONIZATION USED IN WATER AND SEWAGE TREATMENT. SEPTEMBER 1980-MARCH 1983 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; COSTS; DESIGN; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *OZONIZATION; *SEWAGE; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 112P. PRICE CODE: PC N01/MF N01 PB83-804831

ABSTRACT: THE CITED REPORTS FROM A WORLDWIDE LITERATURE SURVEY DISCUSS THE USE OF OZONE FOR INDUSTRIAL WASTE WATER TREATMENT, SEWAGE TREATMENT, AND WATER PURIFICATION. THE CITATIONS COVER SYSTEM DESIGN, OPERATION, COSTS, AND ADVANTAGES OVER OTHER TREATMENT METHODS. SOME STUDIES ON WATER ANALYSIS AFTER TREATMENT ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 103 CITATIONS, 41 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009502

PUBLICATION DATE: DEC 82

TITLE: ALTERNATIVE TECHNOLOGIES FOR SMALL WATER SYSTEM MANAGEMENT.

PERSONAL AUTHOR: DEB, A. K.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGIES; *COSTS; *DRINKING WATER; ECONOMICS; *MANAGEMENT; *MODELS; *TECHNOLOGY; *WATER SUPPLY; *WATER SYSTEMS; *WATMAN MODEL

DESCRIPTIVE NOTE: 94P. PB83-188326 PRICE CODE: PC A05/MF A01

ABSTRACT: THE WATER MANAGEMENT (WATMAN) MODEL WAS EXPANDED TO COVER BOTH LARGE AND SMALL WATER SYSTEMS. DATA APPROPRIATE TO SMALL WATER SYSTEMS AND ALTERNATIVE TECHNOLOGY, ESPECIALLY FOR BOTTLED WATER DISTRIBUTION AND POINT-OF-USE TREATMENT, WERE COLLECTED AND USED TO DERIVE COST INFORMATION. COST FUNCTIONS FOR ESTIMATING CAPITAL AND OPERATIONS AND MAINTENANCE COSTS OF 26 UNIT PROCESSES APPROPRIATE FOR A SMALL WATER SYSTEM WERE INCORPORATED INTO THE MODEL. THE MODEL WAS THEN APPLIED TO FOUR TEST CASES. IN ALL FOUR CASES, THE WATMAN MODEL IDENTIFIED COST EFFECTIVE SOLUTIONS AND COMPETITIVE ALTERNATIVES THROUGH A PRESENT WORTH ANALYSIS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW009503

TITLE: SAMPLING - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POSTSECONDARY EDUCATION; *SAMPLING; *TRAINING METHODS; WATER QUALITY; *WASTEWATER; *OPERATIONS (WASTEWATER); OPERATIONS (WATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $26.20; 63 SLIDES & 17-MINUTE CASSETTE TAPE. EW 008 449 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.60 INSTRUCTOR'S MANUAL; $1.51 STUDENT WORKBOOK.

ABSTRACT: A BRIEF OVERVIEW OF THE BASIC CONCEPTS AND PHILOSOPHIES FOR SAMPLING WATER AND WASTE WATER SYSTEMS IS PRESENTED IN THIS MODULE. THE MODULE IS NOT INTENDED TO SPECIFY SAMPLING PROCEDURES, FREQUENCIES, OR LOCATIONS FOR SPECIFIC TREATMENT FACILITIES, BUT RATHER TO OUTLINE THOSE GENERAL PROCEDURES WHICH SHOULD BE FOLLOWED WHEN SAMPLING UNDER MOST ALL CIRCUMSTANCES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009504

TITLE: SETTLEOMETER - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POSTSECONDARY EDUCATION; *SLUDGE; *TRAINING METHODS; *WASTEWATER; *OPERATIONS (WASTEWATER); SETTLEOMETER TEST; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $17.00; 40 SLIDES AND 11-MINUTE CASSETTE TAPE. EW 009 450 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE

PRICE: $1.87 INSTRUCTOR'S MANUAL; $1.60 STUDENT WORKBOOK.
ABSTRACT: THE SETTLEOMETER TEST IS USED TO INDICATE THE SOLIDS-LIQUID SEPARATION (DOWNTIME) CAPABILITY OF SLUDGE, MOST COMMONLY ON ACTIVATED SLUDGE ENTERING THE SECONDARY CLARIFIER AND AEROBIC DIGESTERS. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) RUN THE SETTLEOMETER TEST TO DETERMINE SOLIDS SETTLEABILITY; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; AND (3) OBTAIN CONSISTANT AND RELIABLE DATA FROM THE TEST PROCEDURE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY. 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009505

TITLE: OXYGEN UPTAKE (RESPIRATION RATE) OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; MICROBIOLOGY; POSTSECONDARY EDUCATION; *SLUDGE; *TRAINING METHODS; WATER QUALITY; *WASTEWATER; *OPERATIONS (WASTEWATER); OXYGEN UPTAKE TEST; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $23.20; 68 SLIDES & 19-MINUTE CASSETTE TAPE. EW 008 446 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.87 INSTRUCTOR'S MANUAL; $1.87 STUDENT WORKBOOK.

ABSTRACT: BIOLOGICAL WASTE TREATMENT IN THE ACTIVATED SLUDGE PROCESS IS BASED ON THE ABILITY OF MICROORGANISMS TO USE DISSOLVED OXYGEN IN BREAKING DOWN SOLUBLE ORGANIC SUBSTANCES. THE OXYGEN UPTAKE TEST IS A MEANS OF MEASURING THE RESPIRATION RATE OF MICROORGANISMS IN THIS PROCESS. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE OXYGEN UPTAKE TEST; (2) GRAPH ITS RESULTS; (3) PROPERLY PERFORM CALCULATIONS FOR SLOPE, OXYGEN UPTAKE RATES, AND (4) OBTAIN RELIABLE DATA FROM THE TEST PROCEDURE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009506
TITLE: CENTRIFUGE - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POSTSECONDARY EDUCATION; *SLUDGE; *TRAINING METHODS; *WASTEWATER; *OPERATIONS (WASTEWATER); CENTRIFUGE TEST; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $17.80; 42 SLIDES & 10-MINUTE CASSETTE TAPE. EW 008 440 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.39 INSTRUCTOR'S MANUAL; $1.42 STUDENT WORKBOOK.

ABSTRACT: DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN A CENTRIFUGE TEST; (2) ACCURATELY READ RESULTS OBTAINED IN TEST TUBES; AND (3) OBTAIN CONSISTENT RESULTS FROM THE TEST PROCEDURE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009507

TITLE: DEPTH OF BLANKET - OPERATION CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; LABORATORY EQUIPMENT; *OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; *SLUDGE; SLUDGE BLANKET FINDERS; *TRAINING METHODS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $27.80; 67 SLIDES & 13-MINUTE CASSETTE TAPE. EW 008 441 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.39 INSTRUCTOR'S MANUAL; $1.63 STUDENT WORKBOOK.

ABSTRACT: THE DETERMINATION OF THE THICKNESS OF A SLUDGE BLANKET IN PRIMARY AND SECONDARY CLARIFIERS AND IN GRAVITY THICKNESS IS IMPORTANT IN MAKING OPERATIONAL CONTROL DECISIONS. KNOWING THE THICKNESS AND CONCENTRATION WILL ALLOW THE OPERATOR TO DETERMINE SLUDGE VOLUME AND DETENTION TIME. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: SUCCESSFULLY MEASURE THE DEPTH OF THE SLUDGE BLANKET IN A CLARIFIER OR GRAVITY THICKENER AND OBTAIN RELIABLE, CONSISTANT RESULTS USING THE PROCEDURES OUTLINED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009508

TITLE: TURBIDITY - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; SLUDGE; SOLID WASTES; *TRAINING METHODS; TURBIDITY; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $17.80; 42 SLIDES & 14-MINUTE CASSETTE AAPE. EW 008 452 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.45 INSTRUCTOR'S MANUAL; $1.48 STUDENT WORKBOOK.

ABSTRACT: DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) STANDARDIZE A NEPHELOMETRIC TURBIDIMETER; (2) DETERMINE THE TURBIDITY OF A SAMPLE; AND (3) CALCULATE TURBIDITY FOR TESTS REQUIRING SAMPLE DILUTION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009509

TITLE: OXYGEN PROFILE - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; MICROBIOLOGY; *OPERATIONS (WASTEWATER); OXYGEN PROFILE TEST; POSTSECONDARY EDUCATION; SAMPLING; *TRAINING METHODS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $17.80; 42 SLIDES & 13-,INUTE CASSETTE TAPE. EW 008 445 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.45 INSTRUCTOR

ABSTRACT: THE OXYGEN PROFILE PROCEDURE IS A MEANS OF MEASURING THE OXYGEN CONCENTRATION AT VARIOUS LOCATIONS IN A BASIN. BY DIVIDING THE SURFACE OF A BASIN INTO SECTIONS AND THEN ESTABLISHING SAMPLE POINTS ON THE SURFACE AT MID-DEPTH, AND NEAR THE BOTTOM, A WASTE WATER TREATMENT PLANT OPERATOR CAN MEASURE AND PLOT DISSOLVED OXYGEN DATA WHICH CAN BE PLOTTED TO VISUALLY SHOW OXYGEN CONCENTRATIONS THROUGHOUT THE BASIN. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE OXYGEN PROFILE TEST; (2) RECORD DATA: (3) GRAPH RESULTS; (4) INTERPRET INFORMATION IN TERMS OF RECOGNIZING AREAS OF OXYGEN DEFICIENCY IN THE SYSTEM BEING TESTED; AND (5) OBTAIN RELIABLE, CONSISTANT RESULTS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009510

TITLE: MASS BALANCE - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; *SLUDGE; SOLID MASS BALANCE; SOLID WASTES; *TRAINING METHODS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $26.20; 63 SLIDES & 19-MINUTE CASSETTE TAPE. EW 008 444 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.72-INSTRUCTOR'S MANUAL; $1.60-STUDENT WORKBOOK.

ABSTRACT: THIS MODULE DESCRIBES THE PROCESS USED TO DETERMINE SOLIDS MASS AND LOCATION THROUGHOUT A WASTE WATER TREATMENT PLANT, EXPLAINS HOW THESE VALUES ARE USED TO DETERMINE THE SOLIDS MASS BALANCE AROUND SINGLE TREATMENT UNITS AND THE ENTIRE SYSTEM, AND PRESENTS CALCULATIONS OF SOLIDS IN POUNDS AND SLUDGE UNITS.
AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

INSTITUTION NAME: LINN-BENTON COMMUNITY COLLEGE.

IRIS ACCESSION NUMBER: EW009511

TITLE: JAR TEST - OPERATIONAL CONTROL TEST FOR WASTEWATER TREATMENT FACILITIES - PART 1.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHEMICAL ANALYSIS; INSTRUCTIONAL MATERIALS; JAR TEST; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; SLUDGE; *TRAINING METHODS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 16 MINUTE COLOR; 3/4" U-MATIC VIDEOCASSETTE. EW 008 443 IS THE INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK. PURCHASE PRICE: $1.87-INSTRUCTOR'S MANUAL; $1.93-STUDENT WORKBOOK.

ABSTRACT: THE JAR TEST IS USED TO DETERMINE THE PROPER CHEMICAL DOSAGE REQUIRED FOR GOOD COAGULATION AND FLOCCULATION OF WATER. THE TEST IS COMMONLY USED IN POTABLE WATER, SECONDARY EFFLUENT PRIOR TO ADVANCED WASTEWATER TREATMENT, SECONDARY CLARIFIER INFLUENT, AND SLUDGE CONDITIONING PRACTICE. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

(NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT PERSONNEL WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE JAR TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; AND (3) DETERMINE PROPER CHEMICAL DOSAGES AND MIXING TIMES FOR PROPER COAGULATION AND FLOCCULATION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

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FIXED FILM PROCESSES	(1)	EW009889						
FLOOD HAZARDS	(1)	EW009409						
FLOOD PLAINS	(1)	EW009409						
*FLOODS	(1)	EW009409						
*FLORIDA	(3)	EW008903	EW008906	EW009284				
*FLOW DISTRIBUTION	(1)	EW008910						
*FLOW MEASUREMENT	(2)	EW009040	EW009313					
*FLOWMETERS	(1)	EW009313						
*FLOW RATES	(1)	EW008906						
*FLOW REDUCTION	(2)	EW009105	EW009486					
*FLOW REDUCTION ANALYSIS	(1)	EW009105						
*FLOWS	(1)	EW008906						
*FLUID FLOW	(1)	EW008910						
FLUIDIZED-BED COMBUSTION	(1)	EW009361						
FLUIDIZED BED REACTORS	(1)	EW009339						
*FLUORESCENT DYES	(1)	EW008910						

*FLUORIDES	(1)	EW009463
*FOOD PROCESSING	(1)	EW009106
*FORCES	(1)	EW009279
*FOREST PRODUCTS	(1)	EW009358
FORESTRY WASTES	(1)	EW009097
*FORTH	(1)	EW009233
*FORTRAN 77	(1)	EW009233
FOSSIL FUELS	(1)	EW009361
*FRESHWATER	(1)	EW009276
*FRUITS	(1)	EW009354
FUEL	(1)	EW009097
*FUEL PRODUCTION	(1)	EW009230
*FUELS	(1)	EW009230
*FUNDING	(2)	EW009029 EW009081
FUNDING	(1)	EW009445
*FUTURES OF SOCIETY	(1)	EW009276
*GALVANIZING	(1)	EW000997
GAS CHROMATOGRAPHY	(1)	EW009166
*GAS MEASUREMENT	(1)	EW009370
*GAS TRANSFER	(1)	EW009370
*GENERATORS	(1)	EW009482
*GEOPHYSICS	(1)	EW009008
*GEORGIA	(2)	EW009283 EW009312
*GOALS	(2)	EW009157 EW009158
*GRAINS	(1)	EW009354
*GRANULAR ACTIVATED CARBON	(2)	EW009242 EW009473
GRANULAR ACTIVATED CARBON	(1)	EW009325
*GRAVITY FLOW	(1)	EW009480
*GREAT LAKES	(1)	EW009039
*GROUNDWATER	(20)	EW009003 EW009005 EW009006 EW009007 EW009008 EW009009 EW009010 EW009107 EW009113 EW009121 EW009242 EW009283 EW009284 EW009285 EW009286 EW009381 EW009408 EW009412 EW009413 EW009445
GROUNDWATER	(4)	EW00[illegible]49 EW009366 EW009384 EW009427

*GROUP BEHAVIOR	(1)	EW009023
*GUIDELINES	(8)	EW009010 EW009015 EW009167 EW009448 EW009449 EW009450 EW009463 EW009496
GUIDELINES	(2)	EW009284 EW009459
*GUIDES	(3)	EW009217 EW009323 EW009453
GUIDES	(1)	EW009324
*HALOMETHANES	(1)	EW009446
*HAZARDOUS MATERIALS	(7)	EW009217 EW009277 EW009285 EW009420 EW009438 EW009450 EW009482
*HAZARDOUS SUBSTANCES	(1)	EW009334
*HAZARDOUS WASTES	(9)	EW009010 EW009050 EW009152 EW009206 EW009217 EW009221 EW009310 EW009366 EW009408
*HEALTH	(1)	EW009260
HEALTH	(1)	EW009409
*HEALTH EFFECTS	(2)	EW009352 EW009383
HEALTH EFFECTS	(1)	EW009165
HEATED EFFLUENTS	(1)	EW009130
*HEAVY METALS	(7)	EW008999 EW009091 EW009118 EW009363 EW009373 EW009374 EW009416
HEAVY METALS	(1)	EW009500
*HERBICIDES	(1)	EW009438
*HIGHER EDUCATION	(1)	EW004175
HIGHER EDUCATION	(1)	EW009170
*HISTORY	(2)	EW009197 EW009276
HISTORY	(1)	EW009309
*HSPF	(1)	EW008946
*HUMAN BEHAVIORS	(1)	EW009409
*HYDRANTS	(1)	EW009393
HYDRAULICS	(1)	EW008971
*HYDROCARBONS	(2)	EW008942 EW009337
HYDROCARBONS	(1)	EW009166
*HYDROLECTRIC STATIONS	(1)	EW009482
*HYDROLOGY	(6)	EW008944 EW008946 EW009094 EW009107 EW009284 EW009351
*ICE	(1)	EW009439

*ILLINOIS (5) EW008907 EW009244 EW009282 EW009460 EW009478
*IMPLEMENTATION (2) EW009015 EW009199

*IMPOUNDMENTS (2) EW009135 EW009136

*INCINERATION (2) EW002190 EW009344

*INDEXES (1) EW009124

*INDIANA (1) EW009036

*INDIVIDUALIZED INSTRUCTION (1) EW009021

*INDUCTION (1) EW009263

*INDUSTRIAL PLANTS (1) EW009130

*INDUSTRIAL SUPPLY (1) EW009090

*INDUSTRIAL WASTES (40) EW008943 EW008971 EW009082 EW009084 EW009092 EW009096 EW009101
EW009106 EW009110 EW009115 EW009131 EW009132 EW009133 EW009159 EW009219
EW009225 EW009230 EW009353 EW009354 EW009355 EW009356 EW009357 EW009358
EW009359 EW009360 EW009361 EW009362 EW009363 EW009364 EW009365 EW009366
EW009377 EW009425 EW009427 EW009432 EW009435 EW009442 EW009477 EW009499
EW009500

INDUSTRIAL WASTES (2) EW009323 EW009340

*INDUSTRIES (2) EW009087 EW009088

INDUSTRIES (1) EW009101

*INDUSTRY (2) EW009349 EW009489

*INFILTRATION (2) EW008907 EW009496

*INFLOW (1) EW008907

*INFORMATION DISSEMINATION (1) EW009453

INFORMATION DISSEMINATION (1) EW009199

*INFORMATION NEEDS (1) EW009470

*INFORMATION SYSTEMS (2) EW009415 EW009470

*INJECTION BLENDERS (1) EW009490

*INORGANIC COMPOUNDS (2) EW009335 EW009347

*INSPECTION (1) EW009396

*INSTRUCTION (2) EW008705 EW009021

*INSTRUCTIONAL MATERIALS (28) EW008811 EW009083 EW009157 EW009158 EW009160 EW009166 EW009195
EW009196 EW009197 EW009198 EW009199 EW009200 EW009201 EW009202 EW009203
EW009204 EW009205 EW009206 EW009223 EW009224 EW009225 EW009262 EW009263
EW009264 EW009266 EW009290 EW009384 EW009458

INSTRUCTIONAL MATERIALS	(10)	EW009459 EW009503 EW009504 EW009505 EW009506 EW009507 EW009508 EW009509 EW009510 EW009511
*INSTRUMENTATION	(6)	EW008811 EW008987 EW009005 EW009008 EW009044 EW009046
INSTRUMENTATION	(1)	EW009340
*INSTRUMENTS	(1)	EW008908
*INTERNATIONAL ACTIVITIES	(1)	EW009407
*INTERVIEWS	(1)	EW009120
*INVENTIONS	(2)	EW009118 EW009119
*INVERTEBRATES	(2)	EW009375 EW009376
*ION EXCHANGE	(1)	EW009137
ION EXCHANGE	(1)	EW009338
*ION SELECTIVE ELECTRODES	(1)	EW009497
*IRON	(2)	EW009003 EW009389
*IRRADIATION	(1)	EW009440
*IRRADIATION PROJECT	(1)	EW009440
*IRRIGATION	(1)	EW009413
IRRIGATION	(2)	EW009349 EW009425
*ISSUES	(1)	EW009221
*IUPAC DEFINITIONS	(1)	EW009232
JAR TEST	(1)	EW009511
*JET INJECTION	(1)	EW009490
JOB SKILLS	(2)	EW009458 EW009461
*KANSAS	(1)	EW009413
*LABORATORY EQUIPMENT	(2)	EW009395 EW009497
LABORATORY EQUIPMENT	(1)	EW009507
*LABORATORY PROCEDURES	(25)	EW008942 EW009006 EW009007 EW009010 EW009166 EW009198 EW009223 EW009224 EW009232 EW009310 EW009323 EW009324 EW009335 EW009372 EW009380 EW009457 EW009503 EW009504 EW009505 EW009506 EW009507 EW009508 EW009509 EW009510 EW009511
LABORATORY PROCEDURES	(1)	EW009032
*LABORATORY SAFETY	(1)	EW009202
*LABORATORY TECHNIQUES	(1)	EW009471
*LABORATORY TESTS	(1)	EW009286
*LAGOONS	(2)	EW009133 EW009341

LAGOONS (1) EW008971
*LAKE MICHIGAN (1) EW009282
*LAKES (4) EW009039 EW009167 EW009368 EW009369
LAKES (1) EW009379
*LAND APPLICATION (7) EW002190 EW009112 EW009350 EW009352 EW009356 EW009426 EW009454
LAND APPLICATION (2) EW009165 EW009238
*LAND APPLICATIONS (1) EW009401
*LANDFILLS (1) EW002190
LANDFILLS (1) EW009107
*LAND TREATMENT (3) EW008971 EW009112 EW009165
*LAND USE (2) EW009102 EW009412
LAND USE (2) EW009028 EW009288
*LATIN AMERICA (1) EW009002
*LAWS (1) EW009283
*LEAD (1) EW009196
*LEADERSHIP (1) EW008995
*LEAKAGE (1) EW009396
LEAKS (1) EW009277
*LEARNING (1) EW009021
LEARNING ACTIVITIES (1) EW009459
*LEGAL ASPECTS (2) EW009283 EW009334
LEGAL ASPECTS (1) EW009028
*LEGISLATION (10) EW009086 EW009124 EW009152 EW009154 EW009200 EW009283 EW009334
EW009410 EW009432 EW009470
LEGISLATION (1) EW009411
*LIFT STATIONS (2) EW008904 EW009398
*LIMITS OF DETECTION (1) EW009232
*LINESTOPPING (1) EW009289
*LITERATURE REVIEWS (54) EW008999 EW009030 EW009120 EW009332 EW009333 EW009334 EW009335
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LITERATURE REVIEWS (1) EW009129

*LOCAL GOVERNMENT (1) EW009015
*LOGGING (1) EW009131
*LOUISIANA (1) EW008960
*LUMBER INDUSTRY (1) EW009131
*MACROINVERTEBRATES (1) EW009376
*MAGNESIUM DIOXIDE (1) EW009119
*MAGNETISM (1) EW009263
*MAINS (1) EW009396
*MAINTENANCE (19) EW008907 EW008946 EW008958 EW008996 EW008997 EW009000 EW009001
EW009016 EW009017 EW009112 EW009289 EW009306 EW009346 EW009348 EW009405
EW009406 EW009473 EW009475 EW009496
MAINTENANCE (3) EW009164 EW009394 EW009478
*MANAGEMENT (50) EW004175 EW008909 EW008944 EW008995 EW009015 EW009023 EW009039
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EW009414 EW009415 EW009426 EW009431 EW009433 EW009470 EW009472 EW009479
EW009481 EW009495 EW009502
MANAGEMENT (4) EW009162 EW009422 EW009428 EW009445
*MANGANESE (2) EW009003 EW009389
*MANHOLES (1) EW008907
*MANNING EQUATION (1) EW009040
*MANPOWER NEEDS (1) EW009438
*MANUALS (4) EW009160 EW009165 EW009166 EW009324
*MANUFACTURERS (18) EW009387 EW009388 EW009389 EW009390 EW009391 EW009392 EW009393
EW009395 EW009397 EW009398 EW009399 EW009400 EW009401 EW009402 EW009403
EW009404 EW009405 EW009406
MANUFACTURERS (1) EW009394
*MANUFACTURING (2) EW009156 EW009396
MARINE BIOLOGY (1) EW009126
*MARINE ENVIRONMENTS (2) EW009126 EW009371
*MARINE WATERS (1) EW009100
*MARYLAND (1) EW009414
*MASSACHUSETTS (2) EW009125 EW009221

*MATHEMATICAL APPLICATIONS (1) EW009083
*MATHEMATICAL MODELS (2) EW008946 EW008947

*MATHEMATICS (1) EW009083

*MEASUREMENT (5) EW008906 EW008910 EW009313 EW009314 EW009404

MEASUREMENT (1) EW009431

*MEAT (1) EW009353

*MEMBRANE FILTERS (1) EW009198

MEMBRANE PROCESSES (1) EW009338

*MERCURY (1) EW009309

*METAL INDUSTRY (1) EW009159

*METALS (7) EW008943 EW009118 EW009159 EW009161 EW009335 EW009442 EW009500

METALS (3) EW009285 EW009377 EW009427

*METERS (2) EW009306 EW009395

*METHANE (1) EW009441

*MICHIGAN (3) EW009303 EW009307 EW009315

*MICROBIOLOGY (9) EW009287 EW009347 EW009350 EW009371 EW009378 EW009379 EW009380
EW009381 EW009382

MICROBIOLOGY (6) EW008960 EW009342 EW009343 EW009441 EW009505 EW009509

*MICROCOMPUTERS (1) EW009153

*MICROFAUNA (1) EW009378

*MICROORGANISMS (4) EW009095 EW009116 EW009372 EW009422

*MICROPOLLUTANTS (1) EW009427

MINE DRAINAGE (1) EW009091

*MINING (2) EW009359 EW009425

*MOBILE EQUIPMENT (1) EW009487

*MODELING (5) EW009346 EW009367 EW009369 EW009370 EW009374

MODELING (2) EW009332 EW009340

*MODELS (14) EW008944 EW009004 EW009038 EW009039 EW009082 EW009094 EW009098
EW009107 EW009114 EW009220 EW009325 EW009447 EW009495 EW009502

MODELS (1) EW009341

*MONITORING (25) EW008968 EW009005 EW009006 EW009007 EW009008 EW009009 EW009010
EW009100 EW009108 EW009161 EW009166 EW009219 EW009288 EW009313 EW009314
EW009324 EW009332 EW009367 EW009395 EW009423 EW009431 EW009433 EW009454
EW009457 EW009477

MONITORING (1) EW009365

*MONITORING PROGRAMS	(1)	EW009007				
*MONITORING SYSTEMS	(1)	EW009007				
*MONITORING WELLS	(1)	EW009009				
*MONTANA	(1)	EW008954				
*MOTION	(1)	EW009279				
*MOTORS	(2)	EW008983	EW009392			
*MUNICIPAL FACILITIES	(1)	EW009109				
*MUNICIPALITIES	(1)	EW009327				
*MUNICIPAL SUPPLY	(1)	EW009090				
*MUNICIPAL WASTES	(5)	EW009110	EW009115	EW009123	EW009165	EW009328
MUNICIPAL WASTES	(1)	EW009377				
*MUTAGENICITY	(1)	EW009251				
*MUTAGENS	(1)	EW009366				
*NATURAL RESOURCES	(2)	EW009081	EW009459			
NATURAL RESOURCES	(1)	EW009460				
*NEBRASKA	(1)	EW009205				
*NEEDS SURVEY	(1)	EW009109				
*NET RISK ANALYSIS	(1)	EW009408				
*NEVADA	(2)	EW009239	EW009476			
*NEW JERSEY	(1)	EW009277				
*NITRATES	(1)	EW009428				
*NITRIFICATION	(1)	EW009481				
NITRIFICATION	(1)	EW009458				
*NITROGEN	(4)	EW009033	EW009035	EW009038	EW009455	
NITROGEN	(2)	EW009340	EW009481			
*NONPOINT POLLUTION	(2)	EW009205	EW009333			
*NONPOINT SOURCE POLLUTION	(3)	EW009094	EW009367	EW009447		
NUCLEAR POWER	(2)	EW009361	EW009365			
NUCLEAR WASTES	(1)	EW009280				
*NUTRIENT LOADING	(1)	EW009369				
*NUTRIENTS	(1)	EW009374				
OBJECTIVES	(1)	EW009459				

*OCEAN DISPERSAL (1) EW009241
*OCEAN DUMPING (1) EW009429

*OCEANOGRAPHY (1) EW009439

OCEANOGRAPHY (1) EW009082

*OCEANS (5) EW009082 EW009100 EW009110 EW009161 EW009371

*ODOR CONTROL (1) EW009403

*ODORS (4) EW009290 EW009390 EW009403 EW009422

*OHIO (4) EW008902 EW008905 EW009217 EW009479

*OHIO RIVER (1) EW009166

*OIL (5) EW009195 EW009201 EW009439 EW009451 EW009452

*OIL DRILLING (1) EW009371

OIL POLLUTION (1) EW009428

*OILS (1) EW009159

*OIL SLICKS (1) EW009201

*OIL SPILLS (7) EW009201 EW009371 EW009439 EW009450 EW009451 EW009452 EW009453

*OIL WATER SEPARATION (1) EW009360

*ONSITE DISPOSAL (1) EW009345

*ONSITE TREATMENT (2) EW009099 EW009345

*ONSITE WASTEWATER TREATMENT (1) EW009125

*OPERATION CONTROL (1) EW009404

*OPERATIONS (1) EW009129

*OPERATIONS (OIL SPILLS) (1) EW009201

*OPERATIONS (WASTEWATER) (80) EW002190 EW008908 EW008954 EW008958 EW008971 EW008983 EW008998
EW009014 EW009030 EW009031 EW009032 EW009033 EW009034 EW009035 EW009036
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EW009511

OPERATIONS (WASTEWATER) (4) EW009162 EW009284 EW009428 EW009458

*OPERATIONS (WATER) (44) EW009000 EW009001 EW009003 EW009004 EW009014 EW009018 EW009084
EW009089 EW009090 EW009160 EW009220 EW009239 EW009242 EW009244 EW009281
EW009282 EW009286 EW009303 EW009307 EW009313 EW009325 EW009332 EW009347
EW009387 EW009388 EW009389 EW009390 EW009391 EW009392 EW009393 EW009395

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OPERATIONS (WATER)	(5)	EW009164 EW009223 EW009224 EW009394 EW009505
*OPERATOR TRAINING	(7)	EW008705 EW009083 EW009160 EW009223 EW009224 EW009346 EW009463
*OPTIMIZATION PROGRAMS	(1)	EW009481
*OPTIMIZED TREATMENT	(1)	EW009491
*ORDINANCES	(1)	EW009277
*ORGANIC CHEMICALS	(1)	EW009323
*ORGANIC COMPOUNDS	(12)	EW008942 EW008999 EW009037 EW009108 EW009164 EW009220 EW009242 EW009337 EW009347 EW009374 EW009422 EW009427
ORGANIC COMPOUNDS	(2)	EW009285 EW009377
*ORGANIC POLYMERS	(1)	EW008998
*ORGANIC WASTES	(1)	EW009376
ORGANIC WASTES	(1)	EW009097
*ORGANIZATIONAL DEVELOPMENT	(1)	EW009023
*ORGANOCHLORIDES	(1)	EW009161
ORIENTATION	(1)	EW009459
ORIENTATION MATERIALS	(1)	EW009459
*OUTFALLS	(1)	EW009474
*OVERLAND FLOW	(1)	EW008971
*OXIDATION DITCHES	(1)	EW009478
*OXIDATION PONDS	(2)	EW009341 EW009400
OXIDATIVE PROCESSES	(1)	EW009338
*OXYGEN	(1)	EW009096
OXYGEN PROFILE TEST	(1)	EW009509
OXYGEN UPTAKE	(1)	EW009340
OXYGEN UPTAKE TEST	(1)	EW009505
*OZONATION	(2)	EW008962 EW009084
OZONATION	(1)	EW009280
*OZONE	(2)	EW008960 EW009037
OZONE	(1)	EW009325
*OZONIZATION	(2)	EW009499 EW009501
*PACKAGE PLANTS	(1)	EW009387

*PACKAGING	(1)	EW009156
*PAINTING	(1)	EW008996
*PAPER INDUSTRY	(3)	EW009131 EW009358 EW009435
*PARTICLE REMOVAL	(1)	EW009004
*PASCAL	(1)	EW009233
*PATENTS	(2)	EW009030 EW009080
*PATHOGENS	(3)	EW009093 EW009382 EW009454
*PENNSYLVANIA	(1)	EW009099
*PERCOLATION TECHNIQUES	(1)	EW009113
*PERFORMANCE	(1)	EW009281
*PERFORMANCE EVALUATION	(27)	EW008909 EW008942 EW008954 EW008958 EW008960 EW008983 EW009003 EW009015 EW009099 EW009100 EW009108 EW009123 EW009232 EW009238 EW009242 EW009311 EW009312 EW009315 EW009341 EW009471 EW009473 EW009478 EW009480 EW009481 EW009482 EW009491 EW009493
PERFORMANCE EVALUATION	(1)	EW009342
*PERMAFROST	(1)	EW009439
*PERSONNEL	(1)	EW008995
*PESTICIDE APPLICATORS	(1)	EW009206
*PESTICIDES	(6)	EW009101 EW009156 EW009206 EW009278 EW009371 EW009430
PESTICIDES	(1)	EW009337
*PETROLEUM	(1)	EW009360
*PH	(2)	EW009032 EW009498
*PHENOLS	(1)	EW008943
*PHOSPHOROUS	(1)	EW009455
*PHOSPHORUS	(3)	EW009038 EW009476 EW009498
*PHYSICAL PROPERTIES	(3)	EW009195 EW009279 EW009416
PHYSICAL SCIENCES	(1)	EW009170
*PHYSICAL TREATMENT	(1)	EW009338
*PHYSIOLOGY	(1)	EW009196
*PICKLING	(1)	EW009362
*PIEZOMETERS	(1)	EW009005
*PILOT PLANTS	(1)	EW008960
*PIPES	(4)	EW009391 EW009397 EW009474 EW009475
*PIPES (WATER)	(1)	EW009289

*PLANNING	(27)	EW009002 EW009014 EW009015 EW009022 EW009087 EW009102 EW009105 EW009107 EW009121 EW009167 EW009205 EW009275 EW009276 EW009410 EW009411 EW009414 EW009420 EW009433 EW009443 EW009447 EW009451 EW009452 EW009453 EW009470 EW009479 EW009486 EW009495
PLANNING	(7)	EW008995 EW009028 EW009152 EW009162 EW009165 EW009282 EW009459
*PLANT DESCRIPTIONS	(1)	EW008963
*PLANT MODIFICATIONS	(1)	EW009476
*PLUMBING	(2)	EW009486 EW009488
*POLICIES	(7)	EW009087 EW009275 EW009276 EW009333 EW009411 EW009413 EW009414
POLICIES	(1)	EW009429
POLICY FORMATION	(1)	EW009283
*POLLUTANT DISSIPATION	(1)	EW008947
*POLLUTANTS	(4)	EW009108 EW009134 EW009161 EW009471
POLLUTANTS	(2)	EW009217 EW009323
*POLLUTANT TRANSPORT	(1)	EW008947
*POLLUTION	(6)	EW009039 EW009082 EW009135 EW009136 EW009154 EW009308
POLLUTION	(4)	EW009091 EW009092 EW009107 EW009327
*POLLUTION ABATEMENT	(1)	EW009447
*POLLUTION CONTROL	(14)	EW009154 EW009197 EW009225 EW009277 EW009334 EW009359 EW009362 EW009363 EW009364 EW009367 EW009368 EW009369 EW009371 EW009384
POLLUTION CONTROL	(2)	EW009283 EW009380
*POLYNUCLEAR HYDROCARBONS	(1)	EW008942
*PONDS	(1)	EW009315
*POPULATION GROWTH	(2)	EW009276 EW009411
*PORT FACILITIES	(1)	EW009129
*POSTSECONDARY EDUCATION	(20)	EW008705 EW008811 EW009083 EW009160 EW009165 EW009166 EW009195 EW009198 EW009202 EW009203 EW009204 EW009206 EW009223 EW009224 EW009225 EW009262 EW009264 EW009265 EW009266 EW009290
POSTSECONDARY EDUCATION	(14)	EW009082 EW009200 EW009458 EW009459 EW009461 EW009503 EW009504 EW009505 EW009506 EW009507 EW009508 EW009509 EW009510 EW009511
*POTABLE WATER	(6)	EW009160 EW009239 EW009325 EW009381 EW009484 EW009485
POTABLE WATER	(1)	EW009282
*POTASSIUM PEMANGANATE	(1)	EW009018
*POULTRY	(1)	EW009353

*POULTRY PROCESSING	(1)	EW008971
*POWER INDUSTRY	(1)	EW009361
*POWER PLANTS	(1)	EW009130
*POWER PRODUCTION	(1)	EW009361
*POWER TRANSMISSIONS	(1)	EW008983
*PREDICTION	(1)	EW009326
*PRESCRIBED PROCEDURES	(1)	EW009457
*PRE-SEDIMENTATION TREATMENT	(1)	EW005905
*PREVENTIVE MAINTENANCE	(1)	EW008996
*PRIMARY TREATMENT	(1)	EW009399
*PRIORITY POLLUTANTS	(3)	EW009108 EW009308 EW009471
*PROBLEM SOLVING	(4)	EW009028 EW009090 EW009158 EW009479
PROBLEM SOLVING	(1)	EW008995
*PROCESS CONTROL	(2)	EW009433 EW009472
PROCESS CONTROL	(2)	EW009340 EW009341
*PROCESS CONTROLS	(1)	EW009314
PROCESS DESCRIPTIONS	(1)	EW009342
*PROCESS DESIGN	(1)	EW009165
*PROGRAM DESCRIPTIONS	(7)	EW004175 EW008705 EW009328 EW009444 EW009445 EW009462 EW009484
PROGRAM DESIGN	(1)	EW009459
*PROGRAM DEVELOPMENT	(1)	EW009459
*PROGRAMED LEARNING	(1)	EW009021
PROGRAM EVALUATION	(3)	EW009162 EW009170 EW009459
*PROGRAM IMPLEMENTATION	(1)	EW009459
*PROGRAM TESTING	(1)	EW008946
*PROJECT DESCRIPTIONS	(1)	EW009282
*PROJECT DEVELOPMENT	(1)	EW009275
PROJECT DEVELOPMENT	(1)	EW009411
*PROJECT REPORTS	(1)	EW009164
*PROPOSALS	(1)	EW009127
*PUBLICATIONS	(1)	EW009124
*PUBLIC ATTITUDES	(1)	EW009485

*PUBLIC HEALTH	(13)	EW009093 EW009116 EW009120 EW009219 EW009221 EW009229 EW009231 EW009350 EW009352 EW009372 EW009383 EW009423 EW009446
PUBLIC HEALTH	(2)	EW009309 EW009349
*PUBLIC INFORMATION	(1)	EW009105
*PUBLIC NOTIFICATION	(1)	EW009199
*PUBLIC PARTICIPATION	(1)	EW009200
*PUBLIC POLICY	(1)	EW009333
PUBLIC RELATIONS	(1)	EW009459
*PUBLIC SAFETY	(1)	EW009420
*PUBLIC WORKS	(1)	EW008995
*PULP INDUSTRY	(1)	EW009358
*PULPING INDUSTRY	(1)	EW009435
*PUMPING STATIONS	(1)	EW009304
*PUMPS	(5)	EW008988 EW009392 EW009398 EW009461 EW009482
*QUALITY CIRCLES	(1)	EW009023
*QUALITY CONTROL	(3)	EW009006 EW009380 EW009406
*QUANTITATIVE ANALYSES	(1)	EW009471
RADIOACTIVE MATERIALS	(1)	EW009365
*RADIOACTIVE WASTES	(3)	EW009080 EW009110 EW009365
*RADIOACTIVITY	(1)	EW009457
RADIOACTIVITY	(1)	EW009336
*RAPID MIXING	(1)	EW009490
RCRA	(1)	EW009152
*REAERATION	(1)	EW009370
*RECLAIMED WATER	(1)	EW009117
*RECOMMENDATIONS	(9)	EW008946 EW008958 EW009116 EW009164 EW009228 EW009386 EW009388 EW009407 EW009471
RECOMMENDATIONS	(2)	EW008971 EW009162
*RECORDKEEPING	(1)	EW009415
*RECORDS	(1)	EW009415
*RECYCLING	(3)	EW009349 EW009442 EW009489
RECYCLING	(3)	EW009131 EW009428 EW009440

REFERENCES (1) EW009152
*REGISTRATION (1) EW009277

*REGULATIONS (14) EW009086 EW009100 EW009101 EW009122 EW009152 EW009156 EW009199
EW009277 EW009363 EW009412 EW009413 EW009448 EW009449 EW009470

REGULATIONS (5) EW009131 EW009361 EW009440 EW009445 EW009457

*REHABILITATION (2) EW009017 EW009348

REMOTE SENSING (1) EW009130

*REPAIR PROGRAMS (1) EW008907

*REPAIRS (2) EW009016 EW009017

*REPORTING (1) EW009415

*REPORTS (2) EW009081 EW009127

*RESAZURIN REDUCTION METHOD (1) EW009472

*RESEARCH (23) EW008947 EW008983 EW009063 EW009088 EW009091 EW009092 EW009093
EW009095 EW009097 EW009107 EW009115 EW009121 EW009124 EW009133 EW009240
EW009286 EW009416 EW009428 EW009448 EW009449 EW009489 EW009493 EW009500

RESEARCH (4) EW009280 EW009427 EW009429 EW009445

*RESEARCH NEEDS (2) EW009120 EW009414

*RESEARCH REPORTS (74) EW008981 EW008999 EW009037 EW009038 EW009096 EW009102 EW009106
EW009112 EW009117 EW009123 EW009125 EW009130 EW009137 EW009161 EW009231
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EW009380 EW009381 EW009382 EW009383 EW009408 EW009409 EW009439 EW009441
EW009446 EW009497 EW009498

RESEARCH REPORTS (1) EW009128

*RESEARCH REVIEWS (2) EW009034 EW009367

*RESERVOIRS (3) EW009288 EW009370 EW009396

RESERVOIRS (1) EW009294

*RESIDENTIAL DEMAND (1) EW009326

RESOURCE MATERIALS (1) EW009459

*RESOURCE RECOVERY (2) EW009442 EW009455

*RESPONSE ORGANIZATIONS (1) EW009420

*RETENTION BASINS (1) EW009315

*RETROFITTING (1) EW009206

*REVENUES (1) EW009487
*REVERSE OSMOSIS (1) EW009437
*REVERSE PUMP TURBINES (1) EW009482
*REVIEW PROCESS (1) EW009229
*REVISED SECTION 301 (H) (1) EW009122
*RISK ASSESSMENT (3) EW009219 EW009229 EW009408
RISK ASSESSMENT (1) EW009365
*RIVER BASINS (1) EW009087
*RIVERS (5) EW008947 EW009134 EW009166 EW009327 EW009368
RIVERS (1) EW009379
ROTATING BIOLOGICAL CONTACTORS (1) EW009339
*RUNOFF (1) EW009028
*RURAL AREAS (4) EW009002 EW009031 EW009167 EW009444
*SAFE DRINKING WATER ACT (3) EW009199 EW009200 EW009324
SAFE DRINKING WATER ACT (1) EW009160
*SAFETY (9) EW009156 EW009202 EW009230 EW009348 [illegible] [illegible] [illegible]
EW009460 EW009463
*SAMPLING (10) EW009006 EW009009 EW009198 EW009241 EW009314 EW009335 EW009374
EW009376 EW009404 EW009503
SAMPLING (2) EW009380 EW009509
*SAND FILTERS (1) EW009099
*SANITATION (4) EW009002 EW009120 EW009345 EW009407
*SCALE CONTROL (1) EW009475
SCIENCE CURRICULUM (1) EW009170
SCIENCE EDUCATION (1) EW009170
*SCIENTIFIC REVIEW (1) EW009229
*SCREENING (1) EW009495
*SCREENS (1) EW009387
SCRIPTS (1) EW009460
*SECONDARY TREATMENT (3) EW008954 EW009033 EW009400
*SEDIMENTATION (1) EW009387
*SEDIMENTS (2) EW009005 EW009374
SEDIMENTS (1) EW009336

*SELECTION CRITERIA (1) EW009015
*SELF-SUFFICIENCY (1) EW009098

*SEMI-CONDUCTORS (1) EW009265

SENSORS (1) EW009431

*SEPTIC TANKS (2) EW009125 EW009345

SETTLEOMETER TEST (1) EW009504

*SEWAGE (7) EW009082 EW009096 EW009126 EW009315 EW009429 EW009498 EW009501

SEWAGE (1) EW009440

*SEWER BASIN CLEANERS (1) EW009016

*SEWER OVERFLOWS (1) EW009315

*SEWER PIPES (1) EW009397

*SEWERS (13) EW008904 EW008907 EW009016 EW009017 EW009029 EW009040 EW009197
EW009305 EW009348 EW009351 EW009397 EW009405 EW009463

*SIMULATIONS (3) EW008944 EW008946 EW009094

*SITE SELECTION (1) EW009219

*SITE VISITS (1) EW008958

*SLIDES (3) EW009204 EW009205 EW009206

SLIDES (1) EW009460

*SLUDGE (23) EW002190 EW009126 EW009231 EW009240 EW009241 EW009312 EW009340
EW009344 EW009352 EW009363 EW009402 EW009426 EW009429 EW009483 EW009440
EW009454 EW009455 EW009472 EW009504 EW009505 EW009506 EW009507 EW009510

SLUDGE (4) EW008998 EW009029 EW009508 EW009511

SLUDGE BLANKET FINDERS (1) EW009507

*SLUDGE CHARACTERISTICS (1) EW009416

*SLUDGE CONDITIONING (1) EW009416

*SLUDGE DEWATERING (1) EW008998

*SLUDGE DISPOSAL (1) EW009402

*SLUDGE STABILIZATION (1) EW009344

*SLUDGE TREATMENT (1) EW009344

*SLUDGE UTILIZATION (1) EW009344

SLURRY PROCESSES (1) EW009343

*SMALL COMMUNITIES (1) EW009031

*SMALL GROUPS (1) EW009028

SOCIAL FACTORS (1) EW009167

*SOFTENING	(1)	EW009389			
SOIL EROSION	(1)	EW009384			
*SOILS	(2)	EW009343	EW009345		
SOLID MASS BALANCE	(1)	EW009510			
SOLIDS SEPARATION	(1)	EW009338			
*SOLID STATE COMPONENTS	(1)	EW009265			
*SOLID WASTES	(3)	EW009106	EW009366	EW009441	
SOLID WASTES	(3)	EW009230	EW009508	EW009510	
*SOLUBILITY	(1)	EW009310			
*SOURCEBOOKS	(1)	EW009278			
*SPECTROPHOTOMETERS	(1)	EW008987			
*SPILLS	(3)	EW009450	EW009451	EW009452	
SPILLS	(1)	EW009277			
*SPRAY APPLICATION	(1)	EW009156			
*STANDARDS	(1)	EW009101			
*STATE-OF-THE-ART REVIEWS	(2)	EW009166	EW009332		
*STATE ROLE	(1)	EW009462			
*STATISTICS	(1)	EW009232			
*STEEL INDUSTRY	(1)	EW009362			
STORAGE	(2)	EW009359	EW009365		
STORM RUNOFF	(1)	EW009447			
*STORM SEWERS	(1)	EW009197			
*STORMWATER	(4)	EW009028	EW009114	EW009351	EW009496
STORMWATER	(1)	EW009280			
*STREAMS	(3)	EW009134	EW009136	EW009370	
*STUDY GUIDES	(2)	EW009170	EW009225		
*SUBSURFACE DISPOSAL	(1)	EW009496			
*SULFIDES	(1)	EW009286			
*SULFUR COMPOUNDS	(1)	EW009286			
*SUPERFUND	(1)	EW009152			
*SUPERPORTS	(2)	EW009128	EW009129		
*SUPERTANKERS	(2)	EW009128	EW009129		

*SUPERVISION (1) EW009158
*SUPERVISORS (2) EW008995 EW009157
*SURFACE RUNOFF (5) EW009114 EW009197 EW009351 EW009447 EW009496
SURFACTANTS (1) EW009337
*SURVEYS (8) EW009029 EW009104 EW009108 EW009109 EW009327 EW009413 EW009444 EW009485
SURVEYS (1) EW009414
SUSPENDED SOLIDS (1) EW009336
*SYNTHETIC FUELS (1) EW009360
*SYSTEMS ANALYSIS (1) EW009332
*TASTES (2) EW009390 EW009422
*TEACHING GUIDES (1) EW009224
TECHNICAL ASSISTANCE (1) EW009445
*TECHNICAL EDUCATION (1) EW009170
TECHNICAL MATHEMATICS (1) EW009170
*TECHNICAL SUPPORT DOCUMENT (1) EW009122
*TECHNOLOGICAL ADVANCEMENTS (2) EW009285 EW009346
*TECHNOLOGY (16) EW002190 EW009036 EW009097 EW009104 EW009118 EW009119 EW009137 EW009159 EW009279 EW009338 EW009339 EW009345 EW009362 EW009432 EW009441 EW009502
TECHNOLOGY (6) EW008705 EW009101 EW009217 EW009289 EW009349 EW009440
*TECHNOLOGY TRANSFER (2) EW009443 EW009444
*TELEMETRY (1) EW009304
*TELEPHONES (1) EW008705
*TEMPERATURE (1) EW008971
*TERATOGENS (1) EW009308
*TERTIARY TREATMENT (2) EW009238 EW009401
*TESTING (1) EW009372
*TEST METHODS (2) EW009323 EW009324
*TEST PROCEDURES (1) EW009324
*TEXAS (1) EW009410
*TEXTBOOKS (1) EW009223
*TEXTILES (1) EW009357
*THERMAL POLLUTION (1) EW009130

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*THERMOCHEMICAL PROCESSES (1) EW009097
TBM (1) EW008960

*TITRATION (1) EW009032

*TOXIC CONTROL (1) EW009123

*TOXICITY (4) EW009156 EW009278 EW009373 EW009378

*TOXIC MATERIALS (1) EW009277

*TOXIC PROPERTIES (1) EW009231

*TOXIC SUBSTANCES (14) EW009081 EW009108 EW009116 EW009123 EW009134 EW009135 EW009136
EW009217 EW009285 EW009309 EW009310 EW009372 EW009378 EW009408

*TOXIC WASTES (1) EW009221

*TRACE METALS (3) EW008943 EW009161 EW009335

*TRAINING (10) EW008811 EW008958 EW008995 EW009002 EW009022 EW009396 EW009406
EW009407 EW009420 EW009481

TRAINING (1) EW009461

*TRAINING METHODS (9) EW009503 EW009504 EW009505 EW009506 EW009507 EW009508 EW009509
EW009510 EW009511

*TRAINING PROGRAMS (1) EW008705

TRAINING PROGRAMS (1) EW009224

TRANSPORTATION (1) EW009359

*TRENDS (1) EW009154

*TRICKLING FILTERS (1) EW009311

TRICKLING FILTERS (1) EW009339

*TRIHALOMETHANES (1) EW009347

*TROUT (1) EW009196

TURBIDITY (2) EW009287 EW009508

*TURBINES (1) EW009482

*TURBULENT DIFFUSION (1) EW008947

*TURBULENT REACTION (1) EW008947

*ULTRAVIOLET IRRADIATION (1) EW009034

*UNITED NATIONS (1) EW009407

*URANIUM (1) EW009493

*URBAN AREAS (4) EW009102 EW009351 EW009409 EW009447
URBAN AREAS (1) EW009479
*USEPA (1) EW009101
*USER ATTITUDES (1) EW009413
USER FEES (1) EW009028
*USER MANUALS (1) EW009094
*UTILITIES (2) EW009028 EW009479
UTILITIES (1) EW009095
VALUES (1) EW009384
*VALVES (3) EW008983 EW009393 EW009398
VALVES (1) EW009289
*VARIANCES (1) EW009100
*VEGETABLES (1) EW009354
*VIDEOCASSETTES (5) EW009195 EW009197 EW009198 EW009200 [illegible]
*VIDEOTAPES (1) EW008811
*VIROLOGY (1) EW009423
*VIRUSES (1) EW008981
*WASH (1) EW009407
*WASHINGTON (1) EW008998
*WASTE COLLECTION (1) EW009159
*WASTE DISPOSAL (44) EW002190 EW009008 EW009010 EW009038 EW009080 EW009082 EW009110
EW009131 EW009133 EW009152 EW009159 EW009206 EW009217 EW009219 EW009221
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WASTE DISPOSAL (5) EW008971 EW009132 EW009230 EW009440 EW009441
*WASTE DISPOSAL SITES (1) EW009010
*WASTE GENERATORS (1) EW009152
WASTE HEAT UTILIZATION (1) EW009361
*WASTE MANAGEMENT (5) EW009081 EW009217 EW009358 EW009365 EW009366
*WASTE RECOVERY (3) EW009080 EW009355 EW009357
*WASTES (1) EW009082
WASTES (1) EW009110

*WASTE STORAGE (1) EW009152
*WASTE TRANSPORTERS (1) EW009152

*WASTE TREATMENT (12) EW009080 EW009084 EW009091 EW009092 EW009096 EW009106 EW009113
EW009131 EW009221 EW009309 EW009361 EW009366

*WASTE USE (1) EW009131

*WASTEWATER (16) EW008942 EW009284 EW009337 EW009370 EW009442 EW009455 EW009500
EW009503 EW009504 EW009505 EW009506 EW009507 EW009508 EW009509 EW009510
EW009511

WASTEWATER (1) EW009082

*WASTEWATER ANALYSIS (2) EW009323 EW009324

*WASTEWATER COLLECTION (18) EW008904 EW008906 EW008907 EW008909 EW009017 EW009040 EW009197
EW009304 EW009305 EW009348 EW009351 EW009397 EW009398 EW009405 EW009447
EW009463 EW009477 EW009496

*WASTEWATER DISCHARGES (2) EW009100 EW009327

*WASTEWATER FLOW (2) EW009105 EW009486

*WASTEWATER FLOWS (1) EW009040

*WASTEWATER RECOVERY (1) EW009355

*WASTEWATER RECYCLING (1) EW009355

*WASTEWATER REUSE (3) EW009104 EW009352 EW009355

*WASTEWATERS (1) EW009101

*WASTEWATER SYSTEM FLOW (1) EW008906

*WASTEWATER TREATMENT (137) EW002190 EW004175 EW008902 EW008903 EW008908 EW008954 EW008958
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EW009510 EW009511

WASTEWATER TREATMENT (10) EW009014 EW009162 EW009230 EW009286 EW009327 EW009332 EW009351
EW009384 EW009429 EW009442

*WATER (3) EW009286 EW009290 EW009337

*WATER ANALYSIS (1) EW008999

*WATER CHARACTERISTICS (1) EW009386

*WATER CONSERVATION	(10)	EW009411 EW009413 EW009414 EW009462 EW009484 EW009485 EW009486 EW009487 EW009488 EW009489
*WATER DEMAND	(1)	EW009326
*WATER DISTRIBUTION	(14)	EW008909 EW009028 EW009063 EW009095 EW009243 EW009287 EW009289 EW009391 EW009392 EW009393 EW009475 EW009479 EW009482 EW009492
WATER DISTRIBUTION	(1)	EW009394
*WATER HYACINTH	(1)	EW009436
*WATER MAINS	(2)	EW009016 EW009391
*WATER METERS	(2)	EW009306 EW009395
*WATER PIPES	(1)	EW009391
*WATER POLLUTION	(20)	EW009091 EW009161 EW009367 EW009368 EW009369 EW009371 EW009372 EW009373 EW009374 EW009375 EW009376 EW009377 EW009378 EW009379 EW009380 EW009381 EW009382 EW009383 EW009460 EW009500
WATER POLLUTION	(1)	EW009230
*WATER POLLUTION CONTROL	(14)	EW009039 EW009092 EW009106 EW009119 EW009130 EW009197 EW009198 EW009201 EW009327 EW009412 EW009425 EW009427 EW009428 EW009447
WATER POLLUTION CONTROL	(1)	EW009499
*WATER PRESSURE	(1)	EW009303
*WATER PROJECTS	(1)	EW009164
*WATER QUALITY	(73)	EW004175 EW008944 EW008946 EW009004 EW009006 EW009007 EW009009 EW009010 EW009081 EW009088 EW009090 EW009095 EW009102 EW009107 EW009113 EW009114 EW009116 EW009121 EW009134 EW009135 EW009136 EW009154 EW009160 EW009166 EW009167 EW009204 EW009205 EW009223 EW009224 EW009284 EW009288 EW009324 EW009326 EW009327 EW009332 EW009333 EW009334 EW009335 EW009336 EW009337 EW009343 EW009347 EW009349 EW009351 EW009366 EW009367 EW009368 EW009369 EW009370 EW009371 EW009372 EW009373 EW009374 EW009375 EW009376 EW009377 EW009378 EW009379 EW009380 EW009381 EW009382 EW009383 EW009395 EW009407 EW009408 EW009423 EW009428 EW009431 EW009445 EW009457 EW009460 EW009483 EW009495
WATER QUALITY	(11)	EW008999 EW009162 EW009282 EW009283 EW009285 EW009286 EW009287 EW009325 EW009447 EW009503 EW00950[illegible]
*WATER QUALITY ASSESSMENT	(1)	EW009010
*WATER QUALITY CONTROL	(1)	EW009113
*WATER RATES	(2)	EW009307 EW009487
*WATER RECLAMATION	(1)	EW009349
*WATER RESOURCE PROJECTS	(1)	EW009127
*WATER RESOURCES	(39)	EW008944 EW008946 EW009063 EW009085 EW009086 EW009087 EW009088 EW009102 EW009104 EW009107 EW009113 EW009114 EW009117 EW009119 EW009121 EW009124 EW009127 EW009164 EW009239 EW009275 EW009276 EW009282 EW009283 EW009288 EW009324 EW009326 EW009332 EW009333 EW009349 EW009410 EW009411 EW009412 EW009413 EW009431 EW009438 EW009443 EW009444 EW009445 EW009461
WATER RESOURCES	(9)	EW009223 EW009224 EW009284 EW009285 EW009327 EW009328 EW009414

EW009447 EW009460
*WATER REUSE (5) EW009116 EW009117 EW009137 EW009349 EW009489
*WATER RIGHTS (1) EW009085
*WATERSHED MANAGEMENT (1) EW009028
*WATERSHEDS (5) EW008944 EW008946 EW009094 EW009167 EW009367
*WATER SOURCES (1) EW009307
*WATER STORAGE (1) EW009240
WATER STORAGE (1) EW009394
*WATER SUPPLY (43) EW008905 EW008909 EW009002 EW009018 EW009068 EW009085 EW009087 EW009089 EW009090 EW009093 EW009102 EW009116 EW009120 EW009124 EW009164 EW009200 EW009223 EW009224 EW009239 EW009243 EW009275 EW009276 EW009282 EW009284 EW009287 EW009283 EW009306 EW009307 EW009324 EW009325 EW009326 EW009327 EW009328 EW009392 EW009393 EW009410 EW009413 EW009444 EW009483 EW009484 EW009485 EW009489 EW009502
WATER SUPPLY (5) EW009289 EW009394 EW009409 EW009411 EW009416
*WATER SYSTEMS (1) EW009502
*WATER TANKS (1) EW009240
WATER TANKS (1) EW009394
*WATER TESTING (1) EW009204
*WATER TOW (1) EW009410
*WATER TRANSFER (1) EW009063
*WATER TREATMENT (62) EW004175 EW008705 EW008905 EW008960 EW008981 EW009000 EW009001 EW009003 EW009004 EW009018 EW009084 EW009089 EW009090 EW009093 EW009095 EW009118 EW009119 EW009154 EW009160 EW009199 EW009200 EW009220 EW009239 EW009240 EW009242 EW009244 EW009281 EW009285 EW009287 EW009303 EW009307 EW009308 EW009325 EW009326 EW009334 EW009347 EW009349 EW009381 EW009387 EW009388 EW009389 EW009390 EW009392 EW009395 EW009396 EW009407 EW009422 EW009423 EW009427 EW009428 EW009437 EW009473 EW009475 EW009479 EW009480 EW009483 EW009490 EW009491 EW009492 EW009493 EW009499 EW009501
WATER TREATMENT (6) EW008999 EW009014 EW009288 EW009394 EW009457 EW009461
*WATER USE (1) EW009124
WATER WELLS (1) EW009107
*WATMAN MODEL (1) EW009502
*WEED CONTROL (1) EW009436
*WELLS (2) EW009009 EW009284
WELLS (1) EW009285
*WETLANDS (3) EW009038 EW009238 EW009384
*WHEY DISPOSAL (1) EW009356

*WILDLIFE	(1)	EW009384					
WISCONSIN	(1)	EW008705					
*WORK ENVIRONMENT	(1)	EW009023					
*WORKSHOPS	(1)	EW009443					
WORKSHOPS	(1)	EW009461					
*WORLD PROBLEMS	(6)	EW009002	EW009063	EW009081	EW009086	EW009089	EW009407
WORLD PROBLEMS	(1)	EW009425					
*WYOMING	(1)	EW009411					
*ZINC	(1)	EW008997					